MARCH, 1963 · 50¢

AMERICAN Cinematographer

International Journal of Motion Picture
Photography and Production Techniques

HOLLYWOOD'S CINEMATOGRAPHERS
NAME THE

TEN BEST PHOTOGRAPHED FILMS OF 1962



EDITING TAPE SOUND WITH PICTURE

Loborotory Procedure For 35mm Color

MOTOR FOR A ZOOM LENS

A NATIONAL INSTITUTION



Negatives

Positives

Color

Black-&-White

•

PROMPT

SERVICE

EVERYWHERE

W. J. GERMAN, INC.

LARGEST AND OLDEST AGENCY FOR Sales And Distribution

EASTMAN PROFESSIONAL MOTION PICTURE FILMS

•

Fort Lee, New Jersey
Jane Street

Chicago, Illinois
6040 North Pulaski Road

Hollywood, Californio
6677 Santa Monica Blvd.

4 PRODUCTION HEADACHES
WE CAN SOLVE WITH CONFIDENCE!



1. LIGHTING

2. GRIP EQUIPMENT

3. PROPS

4. GENERATORS

1800 1600 1000 Amp D C Trucks
700 Amp D C Trailers
100 50 30 20 A C

We are Sole Distributors of

Mole-Richardson Co.

Products in New York City

RENTALS SALES SERVICE

Send for a schedule of rental rates

Since 1921...

Charles Ross INC

LARGEST SUPPLIERS OF MOTION PICTURE, TV AND INDUSTRIAL PHOTOGRAPHIC EQUIPMENT IN THE EAST

333 WEST 52 STREET, NEW YORK 19, N. Y., Circle 6-5470

THE WORLD'S FINEST SYNC TAPE RECORDER

STELLAVOX Sm5



The lightest (5 lb. 10 oz.), smallest (2½"x5"x10") truly professional (broadcast-quality) portable instrument of its kind in existence, it is Swiss-precision engineered, still plenty rugged on location where it has to be. And it carries its own power with it (new Dryfit rechargeable storage cells).

Other Features Include:

- MANUAL AND FULLY AUTOMATIC VOLUME CONTROL
- SYNCHRONIZATION with 16 and 35 mm cameras
- ACCESSORIES Remote control by Wire or Wireless, Eveready Case, Automatic charger, Panel light

AVAILABLE FOR IMMEDIATE DELIVERY

$610.00 non-sync Plus Accessories

Stop in, call or write for a FREE DEMONSTRATION and complete technical information. (NY, Hollywood or Hialeah)

CAMERA EQUIPMENT CO., INC.
Subsidiary of CECO Industries

NEW YORK, N.Y.
315 West 43rd St. • JU 6-1420

HIALEAH, FLORIDA
51 East 10th Ave. • TU 8-4684

HOLLYWOOD, CALIFORNIA
6518 Santa Monica Blvd. • HO 9-8202

AMERICAN

Cinematographer

INTERNATIONAL JOURNAL OF MOTION PICTURE PHOTOGRAPHY AND PRODUCTION TECHNIQUES

MARCH, 1963 Vol. 44, No 3

FEATURES

Training Films For Fire Fighters ... 154
10 Best Photographed Films of 1962 ... 156
How Do You Edit The Sound? ... 160
Colortran's Quartz Lights ... 162
Laboratory Procedure for 35mm Color ... 165
To Be Convincing It Must Be Realistic ... 166
Motor For A Zoom Lens ... 168
Their Problems Hinged On Lack Of A Dolly ... 170

DEPARTMENTS

Industry News ... 130
Behind The Cameras ... 138
Whot's New In Equipment Accessories, Services ... 140
Technical Questions & Answers ... 148
Floshback To Yesteryear (1923—Arthur C. Miller, ASC) ... 175
Index To Advertisers ... 186

ON THE COVER

LINING UP A SHOT for "McHale's Navy," Revue Studios' newest TV film series starring Ernest Borgnine, shown with rifle in hands and crouching over a fallen comrade. No one director of photography is permanently assigned to photograph this show. Instead, Revue rotates its stable of cinematographers so that a different one shoots each segment of the series. Note how both a Brute and a sunlight reflector are used for fill light.

ARTHUR E. GAVIN, Editor

MARION HUTCHINS, Editorial Assistant

OFFICES—Editorial and Business: 1782 No. Orange Drive, Hollywood 28, Calif. Telephone HOllywood 7-2135 EASTERN ADVERTISING REPRESENTATIVE: Paul Gilbert, 489 Fifth Avenue, New York 17, N.Y. Telephone AX 7-5641

AMERICAN CINEMATOGRAPHER established 1920 is published monthly by the A. S. C. Holding Corp., 1782 N. Orange Dr. Hollywood 28, Calif. SUBSCRIPTIONS: United States and Canada $5.00 per year; Foreign, including Pan American Union, $6.00 per year. Remit by International Money Order or other exchange payable in the U.S.I. Single copies 50 cents; back numbers 60 cents; foreign single copies, 60 cents; back numbers, 70 cents. Advertising rates on application.
Copyright 1963 by A. S. C. Holding Corp.
Second class postage paid at Los Angeles, California

ARRIFLEX at work — ONE OF A SERIES*



ARRIFLEX® choice of "shoestring movie-makers"

On a "shoestring" budget and under conditions that allowed no margin for error, Ralph and Bri Brooke, husband-&-wife producing team, created "The Magic Tide," a 32-minute theatrical color film which has met great success. The Brookes wrote, directed, photographed and edited the film, made in San Felipe, a small fishing village in Baja California, Mexico. Following the maxim that "the best is the most economical in the long run," they rented an Arriflex 16, and with only "crash" instructions in its operation, Bri Brooke —shooting in color for the first time—filmed a charming story of childhood adventure. Original footage was blown up to 35mm for theatrical release. Filming was done outdoors under unusually difficult conditions searing 120° heat, sifting, penetrating dust and a native cast. Many of the shots were now-or-never, with no chance of retakes, but Arriflex came through for the Brookes, "... a great piece of camera craftsmanship that has never let us down." The interesting story of the filming was reported in the December 1962 American Cinematographer Magazine.

Successful "shoestring" movie-makers and top budgeted film producers in industry, science and the motion picture capitals of the world, share the same satisfaction with Arriflex's production economy, performance and dependability. From missiles to microbes, in studio or on location, you can depend on Arriflex.



From the microscope to the missile range... from spot locations to sound stages... Arriflex professional motion picture cameras are the dominant choice of filmmakers in science, industry, and entertainment. They're lightweight, rugged, tremendously versatile – uniquely suited to a range of applications virtually without limits. Here are some of the features that give Arriflex cameras their remarkable capabilities:

• MIRROR-SHUTTER REFLEX VIEWFINDER • REGISTRATION-PIN FILM MOVEMENT • 21°-DIVERGENCE 3-LENS TURRET • CONTOUR HAND GRIP • FRAMES-PER-SECOND TACHOMETER • COMPLETE ACCESSORY SYSTEM . . . lenses, standard and special-purpose electric drives, power supplies, time-lapse equipment, film magazines, sound blimps, tripods.



WRITE FOR NEW CATALOG

***YOU ARE INVITED** to send us a description of **your** special use of Arriflex equipment.

ARRIFLEX CORPORATION OF AMERICA | **257 PARK AVENUE SOUTH, NEW YORK 10, N. Y**

THE LAB FOR REVERSAL FILM

16MM

BLACK & WHITE
REVERSAL
PRINTING
&
PROCESSING
&
COLOR PRINTING

OTHER SERVICES

- Work Prints
- Color-to-Color Prints
- Color-to B & W Prints
- Raw Stock
- Ultrasonic Film Cleaner
- A & B Roll Prints
- Fades-Dissolves
- Timed Prints
- Edge Numbering

FOR COMPLETE INFORMATION WRITE

LAB-TV

723 Seventh Ave, New York 19, N.Y. • JU 6-2283

INDUSTRY NEWS

News briefs of industry activities, products and progress



SIDNEY P. SOLOW (left) head of Consolidated Film Industries' Hollywood lab and Bill Daniels President of the ASC whose members were Solow's dinner guests January 28th



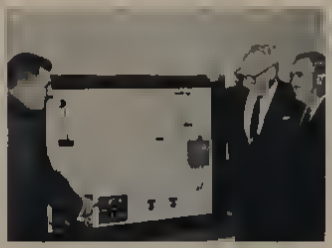
FOLLOWING DINNER, Solow, with aid of colored slides illustrated and described some of the advances made by CFI in film processing and printing techniques

Sid Solow Hosts ASC

Sidney P. Solow, head of Consolidated Film Industries' Hollywood laboratory, entertained members of the American Society of Cinematographers with dinner followed by technical demonstrations on the laboratory premises January 28th

By means of colored slides, Solow, who is an Associate Member of the ASC, took his guests on an "armchair tour" of the CFI laboratory and explained the many advanced technological developments which have been put into practice at CFI. These included a patented leader for 16mm prints that provides the utmost in legibility, durability and infallibility; a new improved printer for making 35mm color prints for television, and which simultaneously prints A&B rolls and sound track; a solvent recovery system that salvages solvent used in company's film cleaning machines, and an infra red replenisher control system for which the company received an Academy Technical Award last year.

Besides the exclusive technical developments of his company, Solow also described some recent developments which are now general with film laboratories everywhere. These included an ultra-sonic film cleaning machine, spray developing of motion picture film devoid of troublesome directional effects on the film; and the use of adhesive metallicised spots on film as cue marks to actuate light changes in the printer. With this method, the electronic detector never contacts the film but scans the spots at a distance, thereby avoiding any possible damage to the film, Solow explained.



CFI ENGINEER Ed Reichard (left) explains to ASC members Hal Mohr and Burnett Guffey a display panel demonstrating CFI's automatic developer replenisher method

Browning Memorial Awards to Aid Cinema Students

Top ranking students in college Cinema classes will be encouraged to expand the scope of their work through an awards program sponsored by the Camera Mart, Inc., of New York. The company will bestow its "Irving and Sam Browning Memorial Awards" annually to three students named by the cinema department heads of New York University, The City College of New York, and Columbia University.

Each award comprises a certificate of the award, a $150 credit toward the rental of professional motion picture equipment, plus a minimum supply of 1200 feet of 16mm negative film stock. Du Art Film Laboratories, of New York has offered to process the negative free of charge, according to Samuel Hyman, President of Camera Mart. The annual award is named in honor of the two founders of the Camera Mart, Inc.

Continued on Page 134


color-correct®
byron motion pictures



"color-correct"

In Webster's dictionary, the adjective correct is defined as "conforming to an approved standard, free from errors."

This describes exactly the Byron "Color-Correct" process that is recognized throughout the motion picture film industry as representing the very highest standard for color duplication. And how did this perfected color process come about?

In 1943, seeking a process for better color reproduction in motion picture prints, Byron instituted an extensive research program. Comprehensive tests were made on the basis of information secured from the National Bureau of Standards. As a result, Byron's printers were modified. Byron then became the first laboratory to print color while accurately maintaining color temperature of the printing lamp, year-in and year-out. With the new Byron process so well received, we adopted the term "Color-Correct." The first of many advertisements on "Color-Correct" printing was placed in November, 1945. Trade-mark application was granted by the U. S. Patent Office on May 26, 1953, under Registration No. 575058.

We know—because we've been told by our customers—that Byron "Color-Correct" prints symbolize the finest quality available in color duplicating. See for yourself!

For free brochure on all Byron services, write, phone, or wire:



byron motion pictures

1226 Wisconsin Avenue, N.W., Washington 7, D.C., Area Code 202, FEderal 3-4000

THE SECOND MOST IMPORTANT TIME IN THE LIFE OF RENTAL EQUIPMENT

CAMERA EQUIPMENT CO., INC

We all know the most important time — when the word is "Action!" and your motion picture equipment must perform flawlessly. There's a "Second most important time." And that, strangely enough, is when nobody is using the equipment

This is the time — every time — between users, that every variety of CECO rental equipment is subjected to prescribed, rigorous inspection, of a unique kind that only the world's largest repair service department is equipped to provide . . .

In Depth Service that means equipment you can rely on wherever in the world your filming takes you. One of the reasons more professionals rent from CECO than all other sources combined. Rent with confidence . . . Rent from CECO.







Select from the largest variety of equipment available anywhere in the world . . . at the lowest possible cost

- **CAMERAS**
  16mm & 35mm — Sound (Single or Double System) — Silent — Hi Speed — Instrumentation
- **LIGHTING**
  Arcs — Incandescents — Spots — Floods — Dimmers — Reflectors
  All Lighting Accessories
- **GENERATORS**
  Portable — Truck Mounted
- **SOUND EQUIPMENT**
  Magnetic — Optical — Mikes — Booms
- **GRIP EQUIPMENT**
  Parallels — Goboes — Other Grip Accessories
- **CRANES, DOLLIES**
  Chapman — Crab — Portable
- **LENSES**
  Wide angle — Zoom — Telephoto — Anamorphic
- **EDITING EQUIPMENT**
  Moviolas — Viewers — Splicers — Rewinders
- **PROJECTION EQUIPMENT**
  16mm & 35mm — Sound & Silent — Slide — Continuous
- **TELEVISION**
  Closed Circuit TV
- **CAMERA CARS**

WHERE THE PROS GO . . .

CAMERA EQUIPMENT CO., INC.

FIRST IN SALES, SERVICE, RENTALS AND REPAIRS

A SUBSIDIARY OF CECO INDUSTRIES INC

NEW YORK, N Y
315 West 43rd St • JU 6-1420

HIALEAH, FLORIDA
51 East 10th Ave • TU 8-4604

HOLLYWOOD CALIFORNIA
6510 Santa Monica Blvd • HO 9-8321

CAMERA EQUIPMENT CO., INC
315 W 43rd Street New York 36, N Y

Gentlemen: Please rush me your FREE complete catalogue of Rental Equipment

Name _____

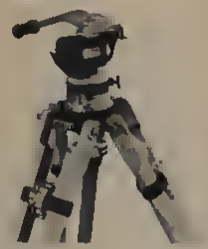
Firm _____

Street _____

City _____ Zone ____ State _____

SMOOOOOTH

That's the word for MILLER FLUID ACTION TRIPOD HEADS! It's because Miller Heads are true fluid heads . . . the load rides on the fluid and all tension adjustments take place within the fluid chambers, giving a velvety smoothness unmatched by any other tripod head There is no slack, no bounce, no backlash, no jitter They are available in two sizes The Professional for cameras of 25-35 lbs, and the Model "D" for cameras weighing 12 14 lbs



MILLER MODEL "D" FLUID HEAD with Ball Leveling Top Miller Groovad Leg Tripod

"D" Head	$150.00
B/L Tripod	139 50
Total	289 50

MILLER PROFESSIONAL MODEL Fluid Head with Ball Leveling Top, Millar Grooved Leg Tripod

Ball Leveling Pro Head	$299 50
Tripod	154 50
Total	454 00



For the finest possible combination, get the new Miller Grooved Leg Tripod with Ball Leveling Top These are the easiest and fastest leveling tops available coupled with the finest and most rigid tripods in the Junior class

At your dealer, or order direct from

MILLER PROFESSIONAL EQUIPMENT

1619 HO CHEROKEE
HOLLYWOOD 28, CALIF
PHONE HOLLYWOOD 7-8189

INDUSTRY NEWS

Continued From Page 130

William J. German Dies

William J German, President of the Eastman professional motion picture film distributorship bearing his name, died on February 17 in Beverly Hills, Calif. He was 74

Mr German's 57-year career in the film industry spanned the era of silent pictures, sound pictures, the second World War, and the advent of television He was associated with Eastman Kodak Company, first as a Kodak employee and later as a distributor of its professional motion picture films He became directly connected with the motion picture industry when, in 1922, he became associated with Jules E Brulator



WM J GERMAN

In 1924 he had a part in organizing and became vice-president and general manager of J E Brulatour, Inc., and, upon the death of Mr Brulatour in 1946, he became president. The Brulatour corporations were distributors of Eastman professional motion picture films In 1952, Mr German purchased the Brulatour business and formed W J German, Inc., of Fort Lee, N J, and W J German, Inc., of California

When Mr German first undertook the distribution of film there were essentially two kinds of black-and white motion picture films available, negative and positive At the time of his death, his company carried in its inventory more than three hundred kinds of Eastman black and white and color films

During his career Mr German became one of the prominent figures in the motion picture industry He was honored in New York and California by industry and trade groups as well as industry charity and welfare organizations He was an Honorary Member of the American Society of Cinematographers and was actively interested in the affairs of the Society

Surviving are his wife, Mrs. Estelle Wehnert German of New York City, and two sons, Arthur W. German of Cumberland, Md., and Fred C. German of Rochester, N Y

e

Charles VerHolen, Onetime Editor of A C., Dies

Charles J. VerHalen Sr., trade magazine publisher and a former editor of *American Cinematographer*, died of heart failure at his ranch home in California February 9. He would have been 75 in March.

In the late twenties, Mr VerHalen came to Los Angeles from the East to handle public relations for the Hollywood Bowl Association He subsequently became editor of *American Cinematographer*, in October, 1932. In 1934, during the depression years, he embarked on his own publishing career and founded *Home Movies* magazine, which became the leader in its field, catering as it did to the growing interest in amateur movie making He subsequently founded *National Photographic Dealer* and *Film World* and in 1947 became joint-publisher of *Western Printer & Lithographer*.

In recent years he was semi retired and devoted much of his time to citrus culture on his California ranch He is survived by his wife, Lillian, a son, Charles, Jr., and three grandchildren

•

New ASC Members

Howard R Schwartz Charles Austin and Charles E Burke have been voted to active membership in the American Society of Cinematographers Schwartz is a Director of Photography with Four Star Television, Inc

Austin, formerly of New York City, is a member of Local 644, IATSE, and served for nine years on its executive board He joined Mitchell Camera Corporation in 1950 as technical representative with offices in New York Moving to Los Angeles last year, he became Marketing Manager for Mitchell and is now based at the company's headquarters in Glendale, Calif

Charles E Burke is a Director of Photography with Four Star Television, Inc., and has been associated with the company for the past ten years

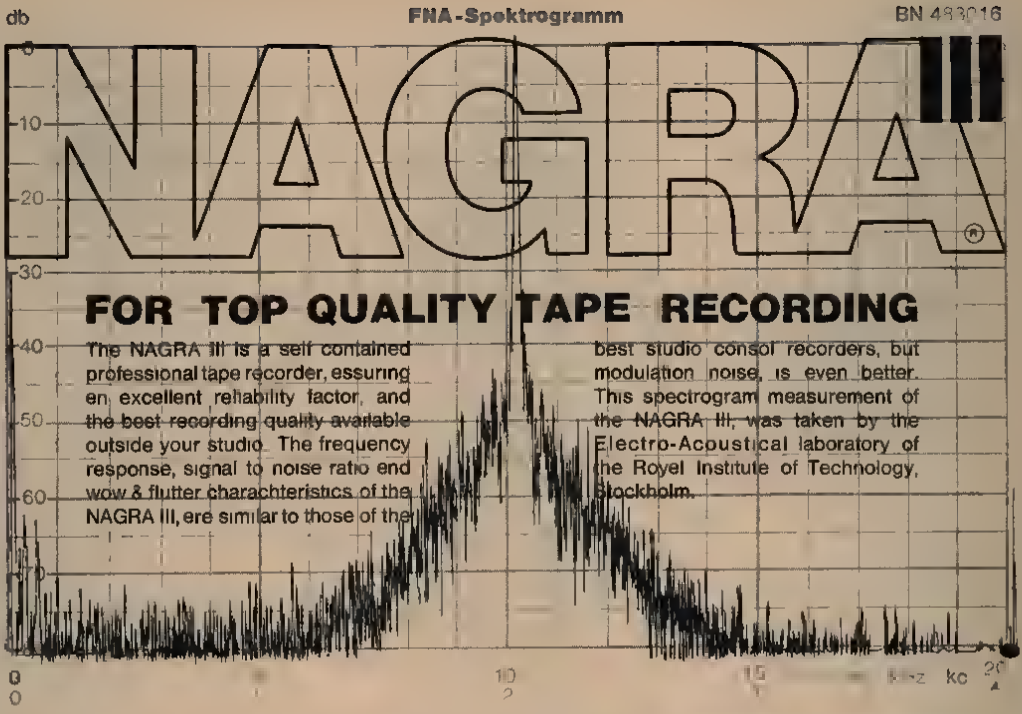
e

Victor James Appointed Arriflex V.P.

Paul Klingenstein, president of Arriflex Corporation of America, has announced the appointment of Victor James as Vice President in Charge of Sales

Victor James joined Kling Photo Corporation in 1952, and was promoted to sales manager of Arriflex Corporation of America when this company was formed in 1959. Since then, he has become well known in the motion picture industry and the television field, having addressed many industry meetings and worked with franchised Arriflex dealers, industrial motion picture producers, and military agencies in the solution of cinematographic problems

Continued on Page 136

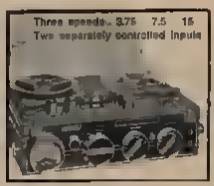


NAGRA III

FOR TOP QUALITY TAPE RECORDING

The NAGRA III is a self contained professional tape recorder, essuring en excellent reliability factor, and the best recording quality available outside your studio. The frequency response, signal to noise ratio end wow & flutter charachteristics of the NAGRA III, ere similar to those of the best studio consol recorders, but modulation noise, is even better. This spectrogram measurement of the NAGRA III, was taken by the Electro-Acoustical laboratory of the Royel Institute of Technology, Stockholm.

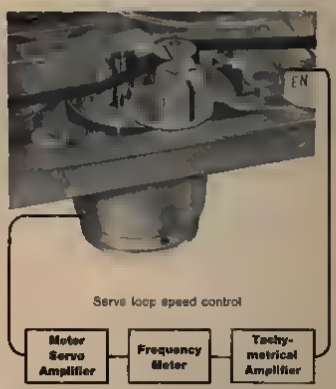






SPECIFICATIONS

Frequency response	30 — 15 000 c/s ± 1 db (15)
	40 — 15 000 c/s ± 1 db (7 5)
Play back circuit signel/noise ratio	72 db ASA A
Erase	- 80 db
Wow & flutter	at 15 0 04 % RMS 2-200 c/s
	at 7 5 0 08 % RMS 2-200 c/s
Recording power consumption	205 ma (12-25 V)
Weight with 12 flash light batteries	15 lb
Dimensions	14 2 x 9 5 x 4 3



SUGGESTED NET USER PRICES IN THE UNITED STATES

NAGRA III e **$ 1045.-**

NAGAR III NP FOR LIP SYNC IN MOTION PICTURES PRODUCTION **$ 1095.-**

SLP SOUND TRANSFER SYNCHRONIZER **$ 295.-**

ASK YOUR NAGRA DEALER FOR NEW ILLUSTRATED BROCHURE, OR WRITE TO:

KUDELSKI

6, CH DE L ETANG PAUDEX LAUSANNE SWITZERLAND

NAGRA AGENCIES FOR SALES AND SERVICE

NEW YORK

Magna Tech Electronic Co. Inc.
630 ninth avenue
Film Center Bldg
New York 36 N Y
Phone JU 6-7242

Harvey Radio Inc
103 West 43rd Street
New York 36 N Y
Phone JU 2-1600

CHICAGO

Behrend Cine Corp
181 East Grand Avenue
Chicago 11 ILL.
Phone MI 2-2081

DALLAS

Audio Acoustic Equipment Corp.
209 South East Street
Arlington Texas
Dallas Phone AN 2-3136
Arlington Phone CR 5-2258

LOS ANGELES

Ryder Sound Services Co.
1161 North Vine Street
Hollywood 38 Calif
Phone HO 9-3611

Magnetic Recorders Co
7120 Melrose Avenue
Hollywood 46 Calif
Phone 933-5545

IF IN EUROPE IN MARCH VISIT OUR STAND 29[B] AT THE photokino SHOW COLOGNE (MARCH 16-24)

HOLLYCAM

Biggest Inventory Best Buys

Cameras—35mm

Mitchell Standard, 4 lenses 2 1000 mags finder mattebox 115V wild motor Roby blimp gearhead tripod cases Excel lent $4800 00

Mitchell Single System, 4 lenses, 2 1000 mags finder mattebox single syst motor complete RCA sound system incl RCA galvo mike, etc gearhead tripod, cases Excel lent $5500 00

Arriflex II, 3 lenses 2 400' mags motor mattebox, cables, case $ 975 00

Bell & Howell 2709, Unit 1 pilot pin movement $1500 00

Bell & Howell 2709 Animation Camera, Unit 1 fixed pilot pin movement Acme animation motor 2 400' mags $1995 00

Acme Animation Camera, Unit 1 movement $1495 00

Bell & Howell Eyemo Q, 3 good lenses filters sunshades motor cable 2 400' mags turret finder critical focuser filter slot, case filter crank $ 650 00

Bell & Howell 71A, 2" B&H lens quick wind case $ 99 50

Cineflex 3 lenses 2 400' mags case motor cables $ 595 00

Cameras—16mm

Bolex Rex, 400' Mitchell mag 110V sync motor $ 675 00

Cine Special, 4 lens turret with 4 C mount lenses 100' mag, set of mattes filters sunshades case $ 595 00

Cine Special I, 4 lenses 100' mag case $ 350 00

Auricon Cine Voice, 400' mag sync motor, counter amplifier galvo mike headset cases $ 895 00

Auricon Pro-200, complete outfit Excellent $ 795 00

One-of-a-Kind Bargains

Bewlds animation cell punch like new list $350 00 $ 200 00

Mitchell 16mm camera blimp fibreglas $ 650 00

Roby Blimp, for most 35mm cameras $ 595 00

Blimp for Cine Special w/sync motor follow focus $ 295.00

Camare Mike Boom, $300 00 list like new $ 185 00

Permacel splicing tape, 66' 35mm—$8 50 16mm $ 4 50

Zoom lens, 12 120mm Angenieux, Arri or "C mount $ 820 00

Film—16mm, 35mm

Shortdated—fully guaranteed

16mmx100 HI Speed Ektachrome	$ 7 50
16mmx100 Super Anscochrome	$ 3 95
16mmx100 DuPont Superior IV neg	$ 2 25
16mmx200 Tri X negative	$ 3 95
16mmx400 Background X negative	$ 7 95
35mm Plus X short ends 100' & up 64 date 1000' for	$ 35 00
35mm Double X short ends 100' & up 64 date 1000' for	$ 35 00

HOLLYWOOD CAMERA CO.

6838 Sunset Blvd., Hollywood 28, Calif

Phone HO 6-1318

INDUSTRY NEWS

Continued from Page 134



454—COUNT 'EM!—A record turnout of American and Canadian film industry executives and technical men attended the Annual Calvin Motion Picture Workshop in Kansas City last month

Calvin Workshop Attendance Breaks All Records

A milestone was reached in the 17-year history of Calvin Motion Picture Workshops when 454 participants reported on Monday, February 4th, for the three day sessions. Every part of the country and a vast cross-section of American and Canadian industry were represented in the record turnout. The meeting was held, as always, "to consider basic and factual information in the production of motion pictures."

The second record to fall involved a demonstration of speedy color film production service. This year's attendees were photographed as they arrived, registered and got down to business in the morning sessions. The opening sessions were photographed with sync sound. At 10:00 AM, photography ceased and a race with time began behind the scenes at Calvin Productions. At 4:30 PM, the same day, after going through all the stages of traditional motion picture production and editing, a sound color release print of an 8½ minute film was delivered by the laboratory. At the evening sessions, the workshop guests saw themselves as the subject of the fastest color production ever accomplished. The film was shot on Ektachrome Commercial, workprinted on Kodachrome (5269) and a married sound-release print made on Kodachrome release stock. The lighting schedule was possible because Calvin possesses all requirements for complete production and processing within their facility.

Featured at the Workshop sessions, in addition to Calvin's own staff of creative and technical specialists, were Allan Wylie of International Paper Company, Marion Jones of Kimberly Clark Corporation; Charles Probst of Cook Electric; Robert Fuller of Pillsbury; Gerry Hall of National Cash Register Company, and Bill Fetter of Boeing. The sessions covered everything from the earliest sponsored motion picture to the latest development in the use of computers to produce animation in the aircraft industry.

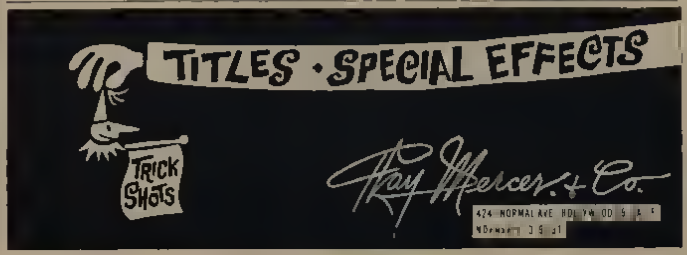
Mitchell Designs New Cameras For U.S. Army and CBS

The Army has contracted with Mitchell Camera Corporation for design and development of a special precision dual 70mm surveillance camera for its Aberdeen Proving Ground, Maryland and Columbia Broadcasting System has ordered an undisclosed number of Mitchell professional 16mm single-system reflex cameras of unusual advanced design.

The 16mm cameras, purchased for CBS News cameramen, are similar in concept to Mitchell's new Mark II 35mm Reflex camera currently up for a Technical Achievement Award at the Academy of Motion Picture Arts and Sciences.

The cameras record both picture and

Continued on Page 184



Originals Only ...PLEASE!

SIGHT or SOUND *If your editor isn't used for ORIGINAL PRINTS -- then you need the*

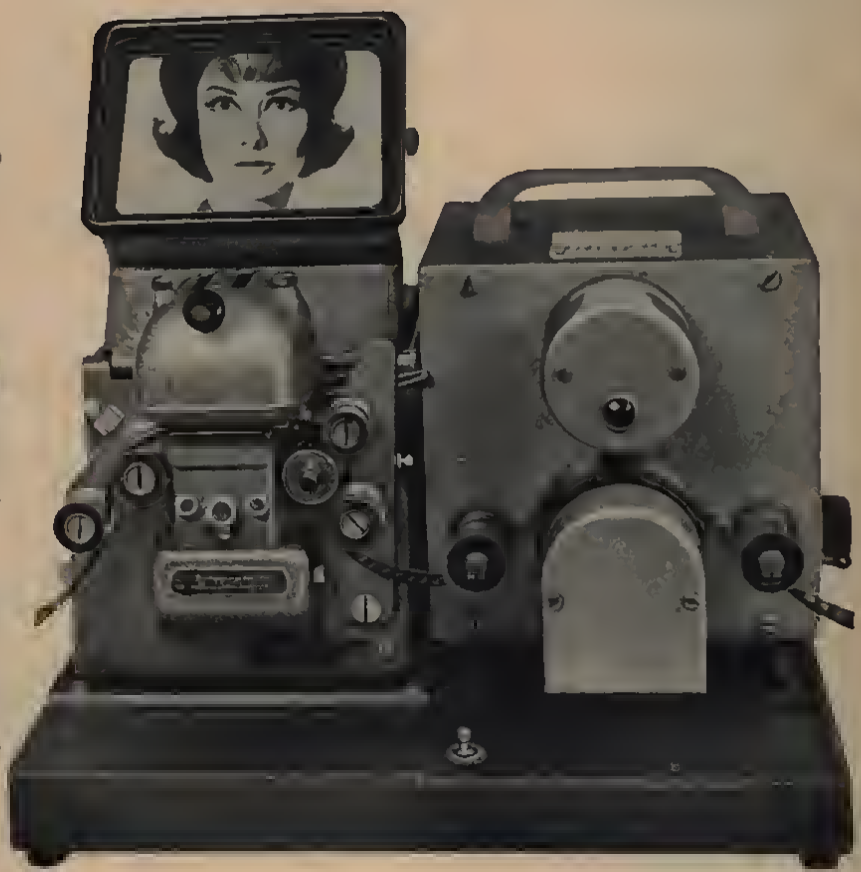
S.O.S. EDIOLA®

16mm

ACTION VIEWER

AND

SOUND READER



Model AO 16mm includes Viewer, Optical Sound Reader, Matched Amplifier/Speoker ond Sub-bose. **ONLY $362.24** *Write for brochure*

S.O.S. PHOTO-CINE-OPTICS, INC.

formerly S.O.S. CINEMA SUPPLY CORP.

602 West 52nd St., N.Y. 19—Plaza 7-0440—Telegram "FAX, N.Y."
Western Branch: 6331 Hollywood Blvd., Hollywood 28, Calif. — Phone 467-2124

SEE OFFERINGS OF EXTRA-SPECIAL VALUES ON PAGES 138, 140 and 144

S.O.S.

BUYS MILLION DOLLAR INVENTORY!

Extra Savings for You!

SEE ALSO PAGES 140 & 144

CAMERAS 35MM

AKELEY AUDIO from Paramount News with full complement of lenses and matched Finders, 12V motor, 1000' magazine, single system less modulator $1495 00

AKELEY NEWSREEL PANCAKE TYPE with 3 lenses and matched finders, 12V motor, 3 magazines, tripod $3300 originally $195 00

BELL & HOWELL 35MM 2709 STANDARD CAMERA with Unit 1 pilot pin movement, 50MM Baltar f2 3 lens, Astro 75MM f2 3 lens, 2—1000' magazines Excellent condition $1995 00

BELL & HOWELL 35MM EYEMO Q complete outfit R to 48 fps, solder turret, 3 lenses with filters sunshades, motor, sewer cable, 2—400' mags, drum finder List value over $2000 ..... $795 00

BELL & HOWELL 35MM EYEMO M complete outfit R to 48 fps, compact turret, 3 lenses with filters sunshades, drum finder List value over $1500 ..... $495 00

CINEFLEX 35MM Camera with 4 lenses—Baltar 50 & 75mm Apogee 35mm, Seminel 6", 1—200 magazine, 2—400' magazines; 1—24V motor with cord tripod and case 2 camera cases $795 00

DERRIE Model K with 3 lenses, 4—400' magazines, metal case Direct focusing $299 50

DEVRY NEWSREEL TYPE with 2" f3 5 focusing mount lens Good condition $99 50
Same less lens $64 50

MITCHELL STANDARD 4 Baltar Lenses (Focus as required), Mattebox, Finder with adjustable mattes, 2 1000' magazines 110V sync motor standard tripod, baby legs case, Raby blimp Excellent condition $5995 00

WALL single system with 4 lens turret, 2—1000' magazines 3 lenses, 12V DC motor viewfinder tachometer counter, case, $6 580 originally Serviceable condition ..... $ 995 00
Reconditioned $1995 00

CAMERAS 16MM

AURICON PRO 200 with mattebox sun shade filter holder, Auto Parallax Finder, less sound, in case Good condition ..... $ 395 00

AURICON PRO 200 like preceding with galvanometer and amplifier, complete $995 00

AURICON PRO 200 with Zoom Door, Parrish conversion 400' Mitchell magazine Includes Modulite Galvanometer, NRS-24 Amplifier $995 00

AURICON PRO 600 CAMERA Model CM 75 with Auto parallax ViewFinder, variable density galvanometer 3 lens turret critical ground glass focusing, noise reduction amplifier, 2 600' magazines lens and blimpine head, 2 microphones extra set of tubes, camera trunk and amplifier Like new $2995 00

BOLEX H16 with PAN CINOR 60 zoom lens 26MM f1 9 Filter prismatic focusser, pistol grip Very good condition $249 50

CINE SPECIAL Series I 25MM f1 9 lens, top viewfinder and case Good condition $395 00

LENSES FOR 35MM CAMERAS, some in Eyemo or B&H mounts, Mitchell, Debrie Akeley mounts some unmounted, B&L Ballers Cooke Zeiss Tessar, Astro, Dallmeyer Goers, Schneider Kinoplic, etc 24MM up to 20" at 10c on the Dollar Send for List Prices start at $15 00

Continued on Pages 140 and 144

S.O.S. PHOTO-CINE-OPTICS, Inc.

602 West 52nd St., New York 19, N Y —Plaza 7 0440
Western Branch 6331 Hollywood Blvd., Hollywood Calif

BEHIND THE CAMERAS

WHAT THE INDUSTRY'S CAMERAMEN ARE SHOOTING LAST MONTH

BY HARION MACHINS

NOTE: Asterisks following titles indicate television film productions

ALLIED ARTISTS

STANLEY CORTEZ, ASC, "The Long Corridor" (Leon Fromkess Prod.) with James Best Samuel Fuller, producer-director

BIOGRAPH STUDIOS—New York

GEORGE STOETZEL, ASC, "Car 54 Where are You?"*

CASCADE STUDIOS

HENRY FREULICH, ASC, Commercials*
ROY SEAWRIGHT, Commercials*

CBS—N Y

CHARLES MACK, LEO ROSSI, ROBERT CLEMENS, "CBS Reports"*.

FRED HOFFMAN, MIKE ZINGALE, "Candid Camera"*

COLUMBIA STUDIOS

GIL TAYLOR, "Doctor Strangelove Or How I Learned to Stop Worrying and Love the Bomb" (Trooper Films shooting in Europe) with Peter Sellers and George C. Scott Stanley Kubrick, producer director

LEON SHAMROY, ASC, "The Cardinal" (Gamma Prod., Tcolor) with Tom Tryon and Romy Schneider Otto Preminger, producer director

SILVIA MASSI, 'Gidget Goes to Rome' (Jerry Bresler Prod Eastman color, shooting in Rome) with James Darren and Cindy Carol Paul Wendkos director

CHARLES WELBORN, FRANK CARSON 'Empire' *

GORDON AVIL, ASC, Commercials*

JACK MARTA, "Route 66"*

ROBERT WYCOFF 'Dennis the Menace'*

CHARLES LAWTON, ASC, Commercials*

BURNETT GUFFEY, ASC, Commercials*

CHRISTOPHER CHALLIS, "The Victors" (Highroad Prod., P'Vision, shooting in England) with Vincent Edwards and Christine Kaufmann Carl Foreman, producer-director

RICHARD RAWLINGS, "Higgins"*.

FRED GATELY, ASC, "Hazel"*

GERT ANDERSEN, ASC, "Donna Reed Show"*

DESILU—Cahuenga Studio

HENRY CRONJAGER, "The Joey Bishop Show"*, "Trader Brown"* (pilot).

ROBERT deGRASSE, ASC, "The Danny Thomas Show"*, "Dick VanDyke Show"*

MAURY GERTSMAN, ASC, "I'm Dickens—He's Fenster"*.

SID HICKOX, ASC, "The Andy Griffith Show"*

DESILU—Culver City

LOTHROP WORTH, ASC, "The Real McCoy's"*.

CHARLES STRAUMER, "The Untouchables"*.

DESILU—Gower

GLEN MacWILLIAMS, ASC, "Fare Exchange"*, "Careful My Love"* (pilot).

MAURY GERTSMAN, ASC, "The Lucy Show"*.

LEO VOICHTLANDER, 'Ben Casey"*

FILMWAY STUDIOS—New York

MORRIS HARTZBAND, ASC, "The Defenders"*

FOX WESTERN AVENUE

JAMES VAN TREES, ASC, "Dobie Gillis"*.

GENERAL SERVICE STUDIOS

LESTER SHORR, ASC, "The Beverly Hillbillies"*.

ROBERT MORENO, "Adventures of Ozzie & Harriet"*

INDEPENDENT

OSWALD MORRIS, "Ceremony" (Laurence Harvey Prod., UA release, shooting in Spain) with Laurence Harvey and Ross Martin Laurence Harvey, director

JOSEPH BIROC, ASC, "Promise Her Anything" (Noonan Taylor Prod.) with Jayne Mansfield and Tommy Noonan King Donovan, director

ALAN STENSVOLD, ASC, "Hera's Las Vegas" (Producers Equity Corp; UA release, Pathe color) with personnel of Las Vegas shows Mitchell Leisen, director.

JOSEPH BRUN, ASC, "International Showtime"*.

SOL NEGRIN, "Dorothy Killgalen Show"* (New York)

WILLIAM MELLOR, ASC, "The Greatest Story Ever Told" (Geo. Stevens Prod., UA release, P'Vision & Cinerama in Technicolor) with Max Von Sydow and Charlton Heston George Stevens, producer-director.

JOSEPH LA SHELLE, ASC, "Irma La Douce" (P'Vision & Color, Mirisch Edward Alperson Presentation) with Jack Lemmon and Shirley MacLaine Billy Wilder, director

CONRAD HALL, "Stoney Burke"* (Daystar).

PHILIP LATHROP, ASC, "The Pink Panther" (Edwards-Mirisch Prod., UA release, Super Techirama 70 & Technicolor, shooting in Rome) with David Iven and Peter Sellers Blake Edwards, director

JOE MacDONALD, ASC, "Kings of the Sun" (Mirisch Prod., UA release, P'Vision & DeLuxe color; shooting in Mexico) with Yul Brynner and George Chakiris. J Lee Thompson, director.

ROBERT KRASKER, "The Fall of the Roman Empire" (Samuel Bronston Prod., Ultra P'Vision & Technicolor, shooting in Spain) with Sophia Loren and Stephen Boyd Anthony Mann, director

LA BREA STUDIOS

RICHARD HAGEN, Perry Mason"*

M-G-M STUDIOS

JACK HILDYARD Very Important Persons" (P'Vision & Eastman color, shooting in England) with Elizabeth Taylor and Richard Burton Anthony Asquith, director

CHARLES LANG, ASC, "The Wheeler Dealers" (Filmways Prod., P'Vision & Metrocolor)

Continued on Page 183

FLORMAN & BABB INVESTS $350,000 IN NEW RENTAL EQUIPMENT

Perfection is a quality of all of F & B's Rental equipment . . . cameras, lenses, sound recorders, Moviolas, lighting equipment—or whatever.

We've told you F & B's rental equipment is MORE RELIABLE. It didn't just happen.. we planned it that way. It takes a corps of top technicians, fine tools and precision machinery to properly maintain all this equipment, plus our determination to insure that F & B Rental Equipment is more reliable!



Here we show you Dom Notto, our Chief Engineer, and a portion of our Camera Room and staff. Our other Rental Departments include Sound Equipment, Lighting & Grip Equipment, Editing & Projection Equipment, as well as a fully equipped Machine Shop and Service and Repair Shops for all departments—staffed by 31 experts, technicians, and other parsonnel—all at your service.

BRAND NEW... **R 35 Reflex Mitchells • BNC Mitchells • High-Speed Mitchells • Arriflex 16mm • Arriflex 35mm • Arriflex M 16mm (All Arriflexes equipped with TTH Kinetal Lenses) • Super 1200 Auricons • Pro 600 Auricons • Cine Voices • Moviolas • Nagra Recorders • Magnasync Recorders • Ampex Recorders Wireless Mikes • Moviola Crab Dollies • Generators**

Write for complete catalog of rental equipment.

Serving the World's Finest Film Makers

FLORMAN & BABB, INC.

68 WEST 45th STREET, NEW YORK 36, N. Y. • MU 2-2928

Rental & Service Dept.: 304 W. 54th St., N. Y. 19

S.O.S.

CORNERS MARKET!

★ Extra Values

CAMERA ACCESSORIES

AURICON BLIMP for Cine Special less motor Excellent condition $295.00

FOX MOVIETONE 4 WHEEL DOLLY Takes heavy cameras similar to Hensian Fearless $395.00

AIRCRAFT 35MM 1000' Magazines double claw transport mechanism and aperture plate Cost Govt $500 New ..... $ 99.50

BELL & HOWELL 35MM 400' magazine ..... $ 39.50

BELL & HOWELL 35MM 1000' magazines ..... $ 69.50

EK CINE SPECIAL 100' Chambers ..... $ 99.50

AKELEY GYRO Tripod with bowl and heavy duty legs Good condition $495.00

S.O.S. VERSA CRANE extends 9', camera position adjustable 18" to 96" from floor. Includes rubber tired dolly, 360° rotation. Value $995 New $395.00

ANIMATION & SPECIAL EFFECTS

SPECIAL EFFECTS OPTICAL PRINTER Acme Camera and Projector Movements throughout projector does 16/35MM camera 35MM only Includes 16 to 8MM reduction Handles all trick printing Custom built for $25,000 Excellent cond $9995.00

BELL & HOWELL 35MM Animation Camera with 2 lenses, 2 400' or 1-1000' magazine Unit Eye shuttle $1495.00

LIGHTING EQUIPMENT

BUY OF A LIFETIME—JUST AS REMOVED FROM FOX MOVIETONE STUDIOS Every unit complete but needs cleaning and repainting—all service able Ceiling Extra

Bardwell & McAllister Single Broads ..... $ 14.95
Bardwell & McAllister Double Broads ..... $ 22.50
Century Quadlites (4 sockets) ..... $ 79.95
Mole Richardson Jr 2000W Cast Aluminum Spots ..... $ 35.00
Mole Richardson Sr 5000W Cast Aluminum Spots ..... $ 59.50
M-R Molarc 120 amp Arc Spots on rolling stand with grid $249.50
M-R Molarc 65 amp Arc Spots on rolling stand with grid ..... $ 99.50
M-R and B & M Pedestals ..... $ 19.50
Barndoors, Snoots, Diffusers, Etc ..... $ 2.50

RECORDING EQUIPMENT

AURICON RT 50 VA Recorder less amplifier $295.00

CUSTOM BUILT 17.5MM Synchronous Magnetic Film Transport with torque motor, lead take up counter balanced flywheels dashpot filter Center track record and playback heads; was used mainly as a dubber Requires repairs Cleaned $149.50

CUSTOM BUILT 16MM Synchronous Magnetic Recorder torque motor feed and take up, capstan, edge track erase record and playback heads Includes Magnecord PT7P record and playback amplifier with 3 microphone inputs Recorder has bias oscillator built in $1000 value Requires slight repairs $349.50

SINGLE SYSTEM Optical Sandwich Recording Unit for Wall or B & H 35MM Camera Includes galvanometer Easily converted to magnetic $495.00

WESTREX PERFOTAPE SYNCHRONOUS RECORDING SYSTEM Most Portable made ¼" perforated tape magnetic recorder RA 1591 with Westrex RA 1592 two position Mixer Dialogue Equalization, VU Meter; Headset monitoring 600 ohm output; DC on Filaments; Headphones Intercepting cables, 2-100' mike cable extensions and 12-1200' rolls of perforated magnetic tape Complete instruction manuals Excellent cond $2500.00

MAURER TYPE 10 OPTICAL RECORDING SYSTEM with 2 400' magazines, Model E 16mm Recorder Model H Galvanometer cross or density negative or positive twin track Model 60 amplifier built in noise reduction; and power supply voltage regulator Headphones Cables Completely reconditioned by factory short time ago Excellent condition Present cost $14,500 ..... $3995.00

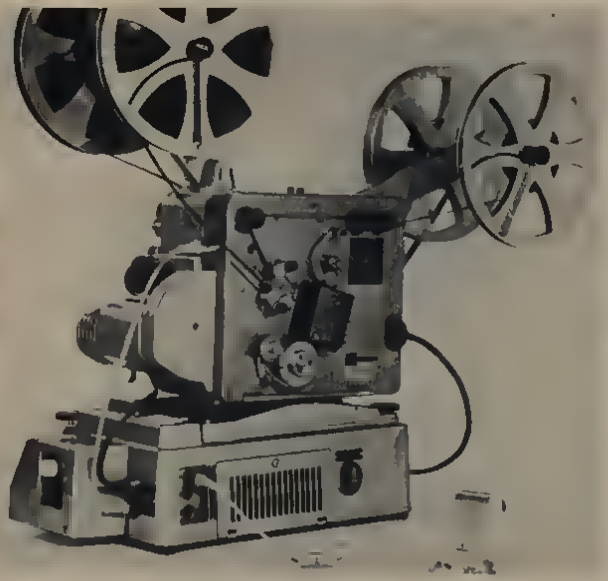
See Also Pages 139 and 144

S.O.S. PHOTO-CINE-OPTICS, Inc.

602 West 52nd St New York 19 N Y —Plaza 7-0440
Western Branch: 6331 Hollywood Blvd Hollywood Calif

WHAT'S NEW

IN EQUIPMENT, ACCESSORIES, SERVICES



DOUBLE SYSTEM 16MM PROJECTOR—The Siemens 16/16 16mm sound projector is a combination machine for screening both conventional single-system sound films and films having sound on separate 16mm sprocketed magnetic film. It may be readily utilized as a preview projector by putting work print on picture-projector side and a 16mm sound track film on the other. Multilingual sound tracks are feasible in a similar way. Also, the original camera reversal film can be threaded on the picture-projector side and the original sound recording mounted, fully interlocked, on the second channel. List price is around $1,795. Distributor is Arriflex Corporation of America, 257 Park Ave. South, New York 10, N. Y.



ZEISS PLANARS FOR THE ARRI 16—Owners of 16mm Arriflex cameras will be interested in the new series of Zeiss Planar lenses now available for this camera. Rated among the best and sharpest lenses now available for 16mm professional work, the Planars are available in 16mm, 25mm

Continued on Page 144

from ANGENIEUX to ZOOMAR

PARIS

ZOOMAR

SEE US AT THESE SHOWS:

Annual Conference of the SPSE
Ambassador Hotel — Atlantic City
April 29 — May 3

93rd SMPTE Exhibit and Convention
The Traymore — Atlantic City
April 22 — April 25

41st Annual Convention
National Association of Broadcasters
Conrad Hilton Hotel — Chicago
March 31 — April 3

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY MAIL
First Class Permit No. 156, Glen Cove, L. I. N. Y.

zoomar INTERNATIONAL INC.
GLEN COVE, L. I., NEW YORK

Postage Will be Paid by Addressee

Return this card for additional information.

Gentlemen:
Please send us information on the following lens(es)

Type ____ Type ____
Type ____ Type ____
Type ____ Type ____
Type ____ Type ____

We are interested in zoom lenses for:

☐ 35MM MOVIE CAMERAS

Make ____ Model No. ____
Make ____ Model No. ____
Make ____ Model No. ____

☐ VIDICON TV CAMERAS

Make ____ Model No. ____
Make ____ Model No. ____
Make ____ Model No. ____

☐ ORTHICON TV CAMERAS

Make ____ Model No. ____
Make ____ Model No. ____
Make ____ Model No. ____

☐ Other applications as follows

NAME ____
POSITION ____
COMPANY ____
ADDRESS ____
CITY ____ ZONE ____ STATE ____

from ANGENIEUX and EVERSHED to ZOOMAR



Products available exclusively through Zoomar International, Inc.

ANGENIEUX ZOOM LENSES

Type	Speed	Zoom Range	Focal Length	Lens Mount
For 16mm Motion Picture Cameras				
Zoom L2	F/2.2	1:4	17/68mm	"C"
10 x 12 SMC	F/2.2	1:10	12/120mm	"C"
For Vidicon TV Cameras				
10 x 15, F/2.8	F/2.8	1:10	15/150mm	"C"
10 x 15, F/1.9	F/1.9	1:10	15/150	"C"
Zoom L5	F/2.5	1:4	20/80mm	"C"
Zoom L5*	F/2.5	1:4	20/80mm	"C"
Zoom L5 RTR	F/2.5	1:4	12.5/50mm	"C"
Zoom L5 RTR* *With view-finder	F/2.5	1:4	12.5/50mm	"C"
For 35mm Motion Picture Cameras				
Zoom LA5	F/3.5	1:4	25/100mm	Neutral
Zoom 10 x 25	F/3.2	1:10	25/250mm	Neutral
Zoom LA2	F/3.5	1:4	35/140mm	Neutral
Zoom LB1	F/2.2	1:4	35/140mm	Neutral
For Orthicon TV Cameras				
LB3	F/3.0	1:4	50/200mm	Neutral
LB4	F/5.3	1:4	100/400	Neutral
LB5	F/3.8	1:4	35/140mm	Neutral
Zoom 10 x 35	F/4.5	1:10	35/350mm	Neutral

ANGENIEUX STANDARD MOTION PICTURE LENSES

Type	Speed	Focal Length	Lens Mount
R62/14.5	F/3.5	14.5mm	Neutral
R2/18.5	F/2.2	18.5mm	Neutral
R2/24	F/2.2	24mm	Neutral
S2/28	F/1.8	28mm	Neutral
S2/32	F/1.8	32mm	Neutral
S2/40	F/1.8	40mm	Neutral
S1/50	F/1.8	50mm	Neutral
S3/75	F/1.8	75mm	Neutral
S3/100	F/2.0	100mm	Neutral

ANGENIEUX LENSES FOR SPECIAL PURPOSES

This is an affiliation of three well known firms, now serving you as Zoomar International, Inc. Zoomar International can make available a particularly comprehensive range of zoom lenses for motion picture and television cameras as well as optics for special purposes. Zoom lenses for Vidicon and Image Orthicon TV Cameras can be supplied with Servo-Controls manufactured jointly by Ets. Pierre Angenieux of Paris and Evershed & Vignoles Ltd. of London. These lens systems are now available in the United States, Canada and South America exclusively through Zoomar International, Inc. Inquiries will receive prompt and most careful attention.

zoomar INTERNATIONAL, INC., GLEN COVE, L.I., N.Y.



Wide flood or Medium flood...with only one housing, fingertip controlled!



The new, versatile, 2 WAY

'DUAL'

This new concept provides you with professional studio lighting **versatility** and **performance** of a magnitude heretofore unavailable. Change to **WIDE FLOOD** or **MEDIUM FLOOD** in seconds, as your requirements change.

Lighting is smooth and even, with no hot spots, banding or filament pattern. Quartz-iodine lamp will not discolor or dim with age, newly designed reflector will not tarnish or discolor. Small, light-weight, rugged and **low cost.** Units operate from 110-120 volts A.C. or D.C.

CONSTANT COLOR TEMPERATURES are maintained throughout the exceptionally long life of lamp

CONVERTER IS **NOT** REQUIRED!

DUAL-650 (650 watts, 5.4 amps)
more than 2000 watts of studio light!

DUAL-1000 (1000 watts, 8.3 amps)
more than 5500 watts of studio light!

15-DAY UNCONDITIONAL FREE TRIAL!

Mail coupon for literature and/or 15-day FREE TRIAL

ColorTran INDUSTRIES
Code 213,
Victoria 9-5991

To. ColorTran Industries, 630 S. Flower St., Burbank, Calif. AC 3

☐ Send complete literature on the Quartz-King "DUAL"

☐ I would like to try the ( ) Dual 650, ( ) Dual-1000 per your 15 day FREE TRIAL offer.

Name_____ Title_____

Company_____

Address_____

City_____ Zone____ State_____

My Dealer is_____

☐ Send name and address of my nearest ColorTran dealer.

S.O.S.

GIGANTIC SALE

See also pages 138 & 140 for Other Extra Specials

CUTTING ROOM SUPPLIES

Fomane WESTREX EDITER Machines (similar to Moviola) formerly $4500 Excellent condition; one of the 16mm units is new

2—16mm Editors each $2250.00
4—35mm Editors each $1995.00

MOVIOLA Preview combination 16/35MM Composite 35MM 4"x6" picture and sound coupled to 16MM optical soundhead and coaxial 16MM projector amplifier and speaker on rolling stand Serviceable $875.00

MOVIOLA 16MM Model ULPVCS Black, Preview sound one side, composite sound and picture on other, magnetic/optical Excellent cond $1995.00

MOVIOLA 16MM Model ULCS Black, sound and separate picture on rolling stand Excellent condition $1395.00

MOTION PICTURE PRINTERS

ACE 35MM Soundtrack Printer an optical operates with any picture printer Excellent condition Send for brochure $295.00

BELL & HOWELL Printer Model D continuous contact 5 way aperture with original style lamphouse Excellent condition Exam $1495.00

B & H 35MM Main Sprocket for D Printers $500 value New $195.00

DEPUE Microfilm Printer 16/35mm Excellent condition $1795.00

DEPUE double head continuous contact 35MM sound and picture Originally $6600 Excellent condition $1095.00

DUPLEX AUTOMATIC 150 Scene Light Change Boards $1500 value (plus $20 crating) Send for brochure $195.00

DUPLEX 35MM Step Printer, 2 machines in one Excellent condition (plus $35 crating) Send for brochure $295.00

PROCESSING EQUIPMENT

BRIDGAMATIC KPL 16MM negative/positive processor new chemroom sample Never used $995.00

GPL 401 HI Speed 16mm Spray Processor, negative/positive Originally $8000; Recond $2995.00

FILMLINE B 15 TC reversal/negative/positive machine with refrigeration bottom drains, air compressor cushion bio squeegee, variable speeds up to 1200' per hour Good condition $2450.00

HOUSTON FEARLESS Model I 16MM negative/positive, variable speed Reconditioned $895.00

MAMMOTH HOUSTON Color Processor 16/35MM Ansco/Ektachrome negative/positive up to 1200' per hour 16 stainless steel tanks Full temperature control Recirculation, air supply 7 squeegees Cost Cuban Govt $35,000 Behind Iron new $11,995.00

HILLS 35MM Daylight Operating Processor with recirculation pump, mixer, automatic hot and cold temperature control blower and alarm systems Cost BCA $7000 Excellent condition $2495.00

➤ *Many other EXTRA SPECIALS included in this Gigantic Sale*

Send for latest issue of S.O.S. Photo News

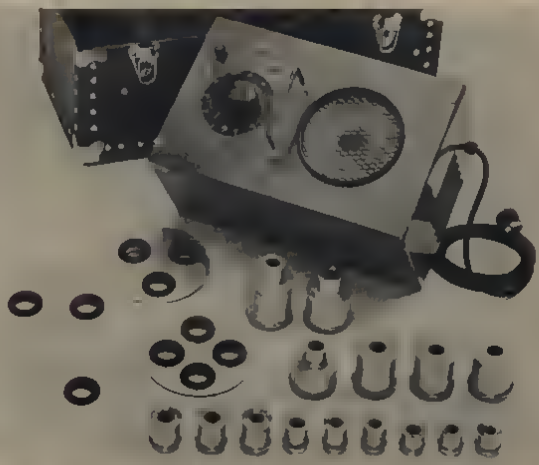
S.O.S. PHOTO-CINE-OPTICS, Inc.

602 West 52nd St., New York 19 N.Y.—Plaza 7-0440
Western Branch: 6331 Hollywood Blvd., Hollywood, Calif.

WHAT'S NEW IN EQUIPMENT, ACCESSORIES, ETC.

Continued From Page 140

and 50mm focal lengths and maximum aperture of F/2. List price is $225.00 each. Available from Arriflex Corporation of America, 257 Park Avenue South, New York 10, N. Y.



PRODUCES AUDIBLE EFFECTS—Sound recording studios and independent industrial film producers now may produce sound effects equalling those heard in major film productions. Mole-Richardson Company, 937 No. Sycamore Ave., Hollywood 38, Calif., is marketing what it has trade-named "Windhowler"— a compact machine with accessories capable of producing a wide range of sound effects for motion pictures. So if you need the sound of wind, a gentle breeze, a hurricane, etc., for some of your forthcoming films, the "Windhowler" can produce them with surprising authenticity. The numerous sounds are produced by means of various combinations of resonators, shown in photo. Sound volume is regulated by rheostat. The equipment may be used "live" on stage, or as a means for recording required sounds in advance of filming.



SLICK CLAPSTICK-AND-SLATE—There's a new look in clapstick-slates these days that eclipses the conventional black-and-white slate, used almost since the advent of sound films. Its the CECO Quick Slate, made of white lucite and which utilizes a black grease pencil as the marking medium instead of chalk. Pencil is permanently attached to slate by means of a pull-out chain with automatic return. A special eraser is provided for quick wipe-off of penciled data and there's a clip on back of slate to hold it when not in use. A novel feature is the use of imbedded magnets to hold clap-sticks in closed position between takes. Measuring 9½" by 11", the slate lists for $24.95.

Continued on Page 146



Bolex H-16 Rex-2: three-upmanship

Going one up on the Bolex H-16 Rex is almost impossible. But Paillard found three ingenious ways to refine viewing, focusing and fade control. The new reflex viewfinder gives you a life-size 1:1 image with the standard 25mm lens The payoff is in needle-sharp focusing. The variable shutter is engraved to indicate four positions from fully open to fully closed. And when the shutter is not fully open, a new yellow safety signal pops into the reflex viewer to tell you so. Fade-ins and fade-outs are precisely controlled. The new eyepiece is adjustable from plus three to minus three diopters to suit the vision of the individual. If you're an experienced moviemaker, you probably know the standard features that have made this Bolex a global favorite. Otherwise, better get to a Bolex dealer straightaway. Why the matte box? Just a reminder that it is one of the most versatile Bolex accessories—for titling and special effects. Can you imagine anything Bolex H-16 Rex-2 can't do? Tell us. $500 with Lytar 25mm f/1.8 lens. Paillard Incorporated, 100 Sixth Ave., New York 13, N.Y. In Canada: Garlick Films Ltd., Toronto. BOLEX



If you want to make a movie of a rescue,



turn on the new G-E Portable Cinema Light!

Cinema Light is the lightest weight, quickest to recharge, lowest cost portable movie light you can buy. Weighs just 8½ pounds, packs power enough to shoot more than one roll of film. Full recharge in an hour; half-charge in 16 minutes. Runs cool. And interchangeable wide-angle, normal or spot beam lamps make totally mobile Cinema Light a versatile professional movie-making tool. See your dealer for demonstration and free 8-page guide with full details.



Progress Is Our Most Important Product

GENERAL ELECTRIC

WHAT'S NEW

Continued From Page 144



Tripod Triangle

The "Tri Down" is an improved tripod triangle offering faster set-up and take down. Instead of conventional hinges a sturdy pin and-clevis construction is used at the center. An additional optional feature are the "Tri Down" clamps in which unthreaded holding pins drop into place instantly and are secured by a twist of a set-screw. Product is available in either plain or black anodized aluminum from Birns & Sawyer Cine Equipment Inc., 6424 Santa Monica Blvd., Hollywood 38, Calif.



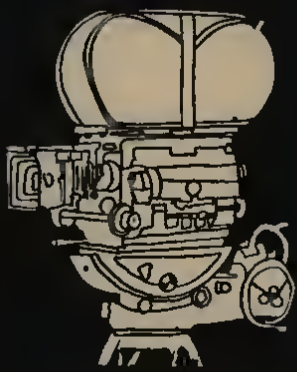
1000 Assorted Characters

And that's a lot of characters for a set of title letters! The DP-90 set pictured above contains over 1000 characters in various sizes and type styles, in both upper and lower case plus bold condensed gothic letters. All this makes possible composing film titles with a mark of creativity and imagination. Completing the outfit are a variety of ornaments, sandwich glass panels, translucent panel for rear projection, colored back-grounds, stands and target sheets. Letters and ornaments are pressure-sensitive-backed for easy adhesion to any surface. Hernard Mfg. Co., Inc., 21 Sawmill River Rd., Yonkers, N. Y.

+70 @ ZERO

SHOOT WITH 70-DEGREE EFFICIENCY AT SUB-FREEZING TEMPERATURES WITH THESE

WINTER LOCATION BASICS



WINTERIZED EQUIPMENT
EACH OCTOBER ALL OF OUR CAMERAS AND LENSES ARE WINTERIZED AND SPECIAL CSC LUBRICANT IS ADDED

HEATED BARNEY AVAILABLE FOR ALL CAMERAS, 110V A.C. AND 220V A.C.

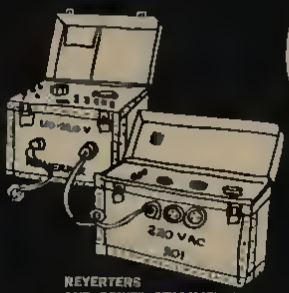




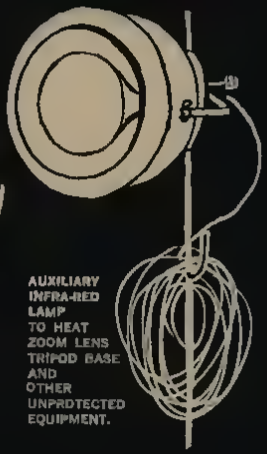
HOT PLATE
WITH UNIVERSAL ADAPTER, 110V A.C.



PORTABLE ROTOR POWER PAK
HEAVY DUTY 70 AMP/HR BATTERIES, 7½ AMP OUTPUT, 9 HOURS CONTINUOUS OPERATION FOR CAMERA, BARNEY, HOT PLATE AND LAMP



REVERTERS AND POWER STABILIZERS FOR 115/60/1 220/60/3 OPERATION



AUXILIARY INFRA-RED LAMP TO HEAT ZOOM LENS TRIPOD BASE AND OTHER UNPROTECTED EQUIPMENT.

FINEST MAINTAINED RENTAL EQUIPMENT

Rentals and sales . . . cameras, dollies, sound, editing, projection, lighting and grip equipment.

camera service center, inc.

sales affiliate • CAMERA SALES CENTER CORPORATION

333 WEST 52nd STREET • NEW YORK 19, N.Y. • PL 7-0906

HOT Print Your Titles with



TEL-Animaprint
HOT PRESS
Prints Dry & Fast
only $495
Write for brochure

S.O.S. PHOTO-CINE OPTICS, Inc.
602 West 52nd St New York 19 — PLaza 7-0440
Western Branch: 6331 Hollywood Blvd., Hollywood, Calif

Q & A

Technical Questions and Answers

Q.—*While the term "filter factor" is not entirely unfamiliar to me, I only recently came up against the problem of having to know exactly what it means and how to use it. It's funny how little straightforward, understandable information one can get from an associate when you put the question to him on technical subject of this kind. Therefore, will you kindly explain the meaning and the purpose of filter factor as concisely and as clearly as possible for a "freshman" cinematographer?*
J. R. R., Oakland, Calif.

A.—Since a filter absorbs part of the light which would otherwise go towards exposing the film, its use involves an increase in exposure corresponding to the proportion of the effective light absorbed. The number of times the exposure must be increased over the exposure without a filter is known as the filter factor.

The filter factor depends principally on the absorption characteristics of the filter, the spectral sensitivity of the photographic material, and the spectral composition of the light by which the subject is illuminated. Factors to sunlight for most of the filters commonly used are given in the specification sheets which film manufacturers make available for the black-and-white camera negative films.

The filters used for obtaining night effects on day exteriors, with panchromatic film, do not have definite factors since the exposure increase required varies with the degree of night effect to be produced.

The foregoing is quoted from "Eastman Motion Picture Films For Professional Use" by Eastman Kodak Company, and may be considered authentic and concise information on the subject.

Continued on Page t50

MAJOR BREAKTHROUGH!
IN SPRAY DEVELOPING

- DEVELOPS NEGATIVE FILM AT 35 FPM
- DEVELOPS POSITIVE FILM AT 60 FPM

The S-60 is Filmline's newest Spray Processor. It is a friction drive processor, *guaranteed* not to break or scratch film. Filmline's exclusive overdrive film transport system is so accurate it makes this guarantee possible. What's more film can be stalled 100% in spray chambers without altering footage. Absolute control of footage in each chamber insures sensitometric quality control and consistent development. And Filmline processors (unlike competitive makes) have lower film assemblies that are adjustable and remain captive in the position placed. Position of lower assemblies can be easily monitored and adjusted by indicator rods at the top of each chamber.

The S-60 is the specific answer to every laboratories need for a Spray Processor — because it outperforms machines costing twice as much. *Look into the Filmline S-60 — It Will Pay You.*

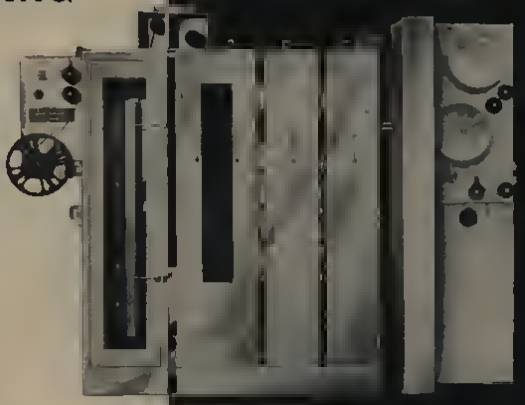
For the full story on the *S-60* write today to:

Filmline CORPORATION
MILFORD, CONNECTICUT

Recent Filmline Installations:
- N A S A Huntsville, Ala
- Reeves Sound, N Y C.
- Thiokol Chemical Co
- WHYN TV, KADO TV, WFMY TV
- Morel Reormament

Dept AM-63

new! FILMLINE S-60
16/35MM NEG/POS
SPRAY PROCESSOR



More Filmline Features
- Film chamber doors are completely removable for easy access to entire chamber (Not found in competitive models of similar class)
- Processing section is stainless steel
- Impingement dry box
- Precision temperature controls with indicating pilot lights for cooling & heating
- 316 Stainless steel pumps for developing & hypo solution
- Water temperature regulator
- Cost air squeegee
- Feed in take up elevators for continuous operation
- Replenishment flow meters
- Manual & automatic brake for film supply
- Automatic electrical torque motor take-up
- Variable drive with film speed tachometer
- Precision Thermometer & footage counter.



WHEN FILMING IN EUROPE

profit

FROM THE SERVICES OF THE LARGEST EQUIPMENT ORGANISATION

LIGHTING
ENTIRE M. R. RANGE
COLORTRAN and LOWEL-LIGHTS
GENERATORS
CAMERAS · DOLLIES
CRANES
GRIP- and SOUND-Equipment
TRANSPORT-LABOUR
TECHNICAL-CONSULTANTS
and SPECIALISED-SERVICES

WRITE DIRECT

FRANCE — 28-28 bis Rue Marcelin-Berthelot, Mantrauge-Seine
Cables: Malereng-Paris
General Manager: René Schell

ITALY — Via del Veladrama 68-74, Rama
Cables· Malereng-Rama
General Manager: Geargе Gardner

GERMANY (Austria)
Hafengerstraße 78, München, 8
Cables: Malereng-München
General Manageress: Gisell Schneeberger

SPAIN — Alcalá 32, Madrid, 14
Cables: Malereng-Madrid
General Manager: Gregaria Sacristan

ENGLAND — Chase Road, London, N.W 10
Cables: Malereng-Landan
General Manager: John A. Page

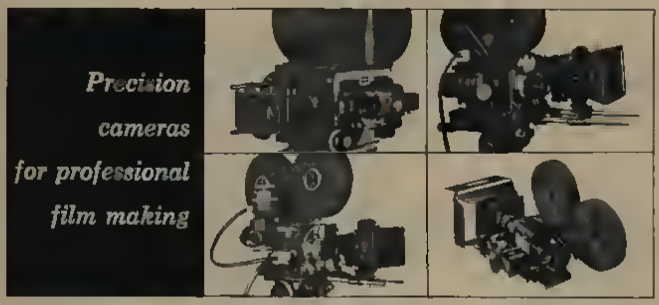
FULL RANGE

for demanding cinematography...

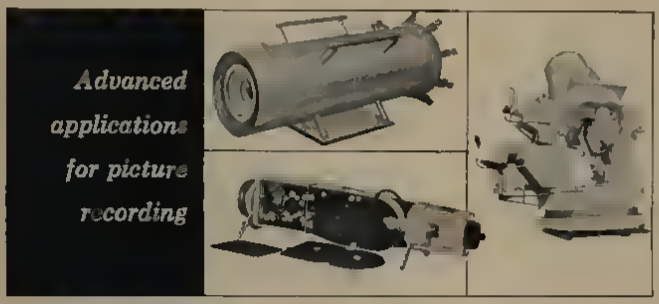
MITCHELL

16mm, 35mm and 65mm Standard and High-Speed Mitchell cameras for TV, theatrical and industrial photography, and 70mm Mitchell cameras are available to your individual requirements.

Mark II 35mm Reflex studio camera is now in use in major studios throughout the world



Underwater, or Outer Space are extremes calling for special cameras and versatile equipment to assure positive and accurate results for engineering evaluation. Mitchell cameras and complete tracking units designed to your specifications are available to meet the most demanding motion picture requirements



SPECIAL CAMERA DESIGNS The experienced Mitchell team offers 45 years of experience in design and engineering projects for special motion picture equipment. The most advanced group of camera engineers, production and test technicians in the motion picture industry is available to meet your special requirements.

85% of the professional motion pictures shown throughout the world are filmed with Mitchell cameras Your inquiry is welcomed Write Sales Department for the Mitchell catalog

MITCHELL
CAMERA CORPORATION
666 W. HARVARD ST., GLENDALE, CALIFORNIA
521 Fifth Ave., New York, N. Y.

NOW REPRESENTED IN OVER FORTY-FIVE COUNTRIES THROUGHOUT THE WORLD. NAMES OF AGENTS IN YOUR COUNTRY ON REQUEST.

QUESTIONS & ANSWERS

Continued From Page 148

Q.—*In planning our forthcoming production assignment, which will be in 35mm Eastman Color, we have become involved in a hassle regarding the advisability of incorporating a number of optical effects, including lap dissolves, fades, and three superimposed titles Some of us have experience in producing such effects in the camera when working in 16mm, but moving up to 35mm color we are faced with doing the effects in what we understand is "the more professional way" via A&B roll editing and printing*

Although we have read about A&B roll editing in various issues of your publication, we are as yet totally inexperienced in the technique. Will you therefore kindly explain how pursing the A&B route will be more advantageous to us?—A. E. L., Akron, Ohio.

A.—If your production is to be something special where quality in the prints is of major importance, then A&B roll printing certainly is to be recommended.

The least expensive method of producing release prints is printing direct from the edited 35mm color camera negative—with optical dupe sections cut in to provide effects However this provides no protection for the original To provide protection, particularly where print requirements will be large, an intermediate positive is made from the camera negative

For the most satisfactory screen quality of optical effects, the 35mm camera negative should be cut in A&B rolls so that the color interpositive will be a single roll printed from the original, with all the effects incorporated Timing and color corrections are made at the same time to produce a fully-corrected color interpositive

The advantage of the A&B roll method of printing effects is obvious: All printing is from the original negative, with no intercut dupe sections Thus the prints will screen the same quality from beginning to end, whether straight cut or joined by effects ■

Need professional advice on a picture making problem? Readers questions will be answered by mail when accompanied by stamped envelope for reply Questions and answers considered of interest to readers will be published here

Better Buy...Birns & Sawyer



STOP WATCHES

Shows film footage for 16 and 35 mm

Big BIG, block numbers you can read without squinting. A real Stop Watch designed as a Stop Watch with a specially designed Stop Watch case and works. Easy, finger tip operation. Shock proof, water resistant, dust resistant, anti magnetic, self compensating. Unbreakable main spring. Guaranteed one year.

Cataleg 2624—Filmeter $15.95
Cataleg 2625—Studte $24.95



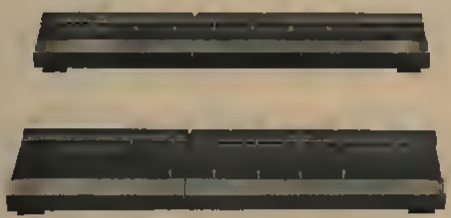
*Trademark

Holding pins drop into place, fast. Lock with a twist of the set screw

TRI-DOWN* Triangles

New, advanced design uses sturdy aluminum pin and clevis construction. No hinges to sag or wobble. Works precisely and efficiently. Folds compactly. Laughs at the years. Fast, fast Tri-Down* Clamps eliminate slow, time-consuming threads. Holding pins *drop* into place, fasten with a twist.

Cataleg 2110—Triangle with Tri-Down Clempe . . . $38.00
Catalog 2111—Triengle without Tri-Down Clemps . $26.00
Cataleg 2112—Shiny bleck anodized aluminum triengle with Tri-Oewn Clamps . . . $39.00



INSTANT SPLICER

Rugged, but precision engineered for accuracy. Tooled from solid aluminum bar stock. Won't break if you drop it. Anodized in eye resting green. No paint to chip or peel. Individually turned brass pegs are accurately jig spaced. *Tip* Keep an Instant Splicer by each projector. Broken film can be mylar spliced, returned to service in seconds.

Cetaleg 2668—16mm Splicing Bleck . . . . . $ 9.50
Cetaleg 2669—35mm Splicing Block $12.50



CIN-AR ADAPTER

Converts Arri Lenses for "C" mount cameras. One lens fits two cameras. Saves money.

Catalog 1150—Cin-Ar Adapter $16.50

Accessories for ARRI



Extension Tube

Changes focal length of Arri lenses. Several Tubes can be combined for close-up work. Makes camera more versatile.

Cateleg 1146—Extension Tube for Arriflex Lens $18.00



See your locel franchised dcaler, or write.

BIRNS & SAWYER Cine Equipment

6424 SANTA MONICA BLVD. • HOLLYWOOD 38, CALIF. • HO 4-5166 • CABLE: BIRNSAW

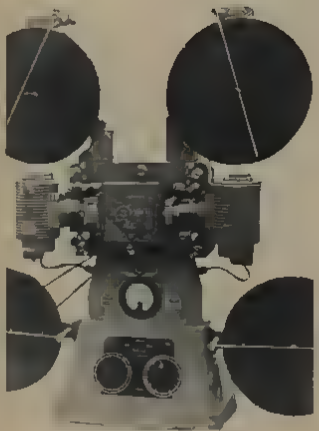
In Seattle: Birns & Sawyer Northwest • 117 Warren Ave., North • AT 2-7332

U. C. M.

for MOTION PICTURE FILM PRINTERS

Finest Precision Equipment For Every Porfessional Need

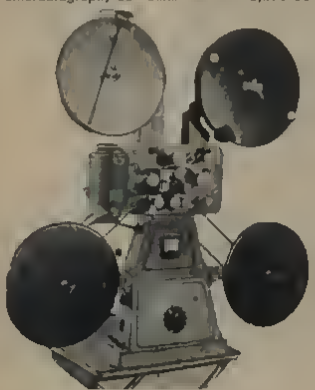
→ WRITE FOR DETAILED SPECIFICATION SHEETS ON THESE PRINTERS ←



OPTICAL REDUCTION-ENLASGING PRINTSS

Reduces 35mm to 16mm; enlarges 16mm to 35mm—color or B&W 1200-ft capacity Speed 1400 to 3500 ft per hour

35mm-16mm model	$2,475 DO
16mm-8mm model	1,775 00
Comb 35mm continuous	1,945 OD
Cineradiagroph, 35/16mm	2,275 00



16MM-35MM MICSO PSINTER

Continuous contact printer for unperforated 8im, 1200-ft. capocity; prints 1600 ft per hour 115-volts, 60 cys A.C

$920.00



STRIP FILM PSINTSS—35MM OR 16MM

Custom built to assure perfect registration Accommodates looped negatives or rolls up to 1200 feet Maximum speed 1600 ft per hour

$1,325



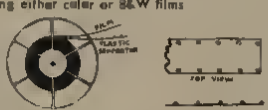
8MM-16MM CINE FILM PRINTER

Improved model Makes sharp, brilliant copies of color or B&W cine films A C operated, no batteries required. Two rheostats afford range of tD printer light densities

$195.00

DEVSLOPING TANKS AND SEELS

Stainless steel tanks and reels for processing either color or B&W films

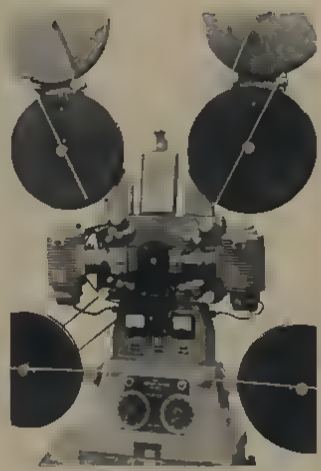


Features exclusive Uhler Plastic Separator strip which permits maximum distribution of solutions over 8im surface when used with wire processing reels.

Complete, $50.00

Separate Components

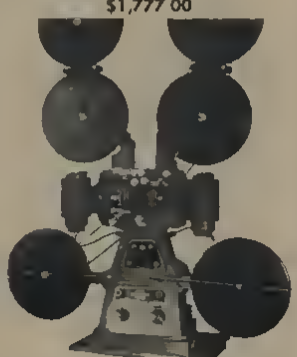
16mm tank	$16 95
8mm tank	11 95
16mm reel	18 95
8mm reel	12 95
16mm separator strip	14 95
8mm separator strip	6 95



COMBINATION 8MM AND 16MM CONTACT PSINTER

For printing sound and picture single or double system, separately or simultaneously Capacity, 1200 ft Speed 3000 ft per hr Perfect prints assured

$1,777 00



16MM CONTINUOUS PSINTSS

Improved comb printer for B&W, color, with single or dbl-system sound tracks Prints picture & sound simultaneously Capacity 1200-ft, speed to 1600 feet per hour

$1,295.00

ALL PRICES F. O. B. DETROIT, MICHIGAN

UHLER Cine MACHINE CO

15762 Wyoming Avenue • Detroit 38, Michigan

Phone: UNiversity 1-4663 **Cable Address: UHLCIMA**

TERMS: 25% deposit with Domestic Orders Letter of Credit must accompany Foreign orders o f Destination established so National Bank of Detroit

IN THE EAST...IT'S MOVIELAB



FOR COLOR AND BLACK & WHITE

DEVELOPING COLOR NEGATIVES • ADDITIVE COLOR PRINTING • REDUCTION PRINTING INCLUDING A & B • COLOR SLIDE FILM PROCESSING • BLOWUPS • INTERNEGATIVES • KODACHROME SCENE-TO-SCENE COLOR BALANCED PRINTING • EKTACHROME DEVELOPING AND PRINTING • REGISTRATION PRINTING • PLUS COMPLETE BLACK AND WHITE FACILITIES INCLUDING CUTTING ROOMS, FILM AND TAPE VAULTS AND THE FINEST SCREENING FACILITIES IN THE EAST

MOVIELAB

MOVIELAB BUILDING, 619 WEST 54TH ST.
NEW YORK 19, NEW YORK - JUdson 6 0360



CAMERAMAN AND DIRECTOR working close to fire for dramatic shots of burning school. Using 2-way radio intercom, director supervises fueling of flames and instructs other cameramen covering scene from other setups.

Some of the challenges involved in producing

Training Films For Fire Fighters

Saving flaming sets for a second and third take was only one of the many problems faced by Iowa State University film makers in producing a training film on fire fighting techniques.

By D. FREDERICK COOK

"CUT!" the director shouted. The cameraman flipped off the switch, threw his headgear to the ground, and began wiping water spots from his lens filter. Everyone on the set relaxed—except the actors. Sweaty, grimy and determined, they continued as if they hadn't heard the director's order.

It was a good take. But there wouldn't be any more takes if the actors quit now. For this was a training film on fire-fighting techniques. And the "set" was going up in smoke and flames.

"More pressure on this line," one straining "actor" yelled. Another raced up a ladder to begin chopping a hole in the roof. And the actors, all members of the Iowa State University Fire Service Extension staff, spent three hours extinguishing the fire before filming could continue on the next scene. The fire had spread to the next room, raced up an interior wall, and completely engulfed the attic.

Saving the set for another take is only one example of the many unique problems that can suddenly confront the film maker who is working on such a highly technical subject as fire-fighting. There are many more, each interesting and challenging. Let's take a look at a few of these unique problems that have confronted the Iowa State University Film Production Unit staff during its production of fire training films. Although the principles are related directly to fire-fighting films, they also apply to other technical and specialized filming areas.

If quality training films are to

be produced in specialized areas such as fire fighting, there must be a complete understanding between the film maker and fire service technician or specialist who is serving as technical advisor.

The technical advisor on the film must be acquainted with the many production problems involved in film making. Having this background knowledge, such a specialist can help the film maker produce a clearer interpretation of the subject.

Must Know Subject

Before the film maker starts, he must thoroughly understand the technical information he is proposing to present on film. If he is going to make a film on fire-fighting techniques, he will be wise to watch the techniques applied in fighting full-scale accidental fires. He may even go one step farther and try to gain additional knowledge through actual fire-fighting experience.

For example, if the film maker really wants to find out how a wide fog stream of water protects the nozzleman from the heat of a fire, there is no better way to find out than to stand behind such fog and then turn it off. Observation and experience will bolster the theoretical background the film maker has carefully obtained from the technical advisor. It gives him a better chance to analyze existing problems and develop a more comprehensive and accurate script.

And the script has crucial importance. With an unpredictable subject like fire, it may seem like a script would be a waste of time. But this is not the case. An even more unpredictable subject is fire-fighting, all the more reason why the subject matter should be fully scripted before production begins, because it provides a common ground on which to proceed with the production and helps add continuity to the finisbed film. It allows the film maker a chance to integrate his own ideas, the

Continued on Page 190



CAMERA, MOUNTED ON elevated hydraulic boom of power company service truck, covers fire fighting operation from high vantage point to effectively show method of attacking a large fire from above



WORKING FROM CARTOP platform, photographer covers a fire fighting exercise unhampered by curious onlookers who might otherwise crowd around camera and obscure its view.

SCRAP LUMBER fueled flames for schoolhouse burning



Hollywood's Cinematographers Name The

10 BEST PHOTOGRAPHED FILMS OF 1962

From among the ten, one black-and-white and one color film will be honored for Best Achievement in Photography by the Academy next month, and the Directors of Photography presented with "Oscars."

By ARTHUR GAVIN



JUST AS THERE'S no better judge of cooking than an experienced and dedicated chef or cook, it follows that the film industry's cinematographers are eminently qualified to choose annually the year's best photographed motion pictures—as they have been doing each year in naming their choice of five black-and-white and five color pictures as the Nominees for the Best Photographic Achievement awards of the Academy of Motion Picture Arts and Sciences. The ten films so selected logically may be considered the Ten Best Photographed Motion Pictures of the year, chosen as they are by the men who know cinematography best—Hollywood's directors of photography.

The Nominees for the Academy's "Oscar" awards for photographic achievement were announced February 25th following a series of screenings and subsequent balloting by members of the Academy's Cinematographers' Branch. From among the ten films named, one black-and-white and one color picture will be voted "the best photographed" in a general balloting on all categories in the annual "Oscar" derby by the entire Academy membership this month. Presentation of awards will be made April 8th.

"Oscar" Nominees for Best Photography—*the Ten Best Photographed Pictures of 1962*—and the men who photographed them are:

BLACK-AND-WHITE

"Bird Man of Alcatraz,"
United Artists,
Photographed by BURNETT GUFFEY, ASC

"The Longest Day,"
20th Century Fox,
Photographed by JEAN BOURGOIN, HENRI PERSIN and WALTER WOTTITZ

"To Kill A Mockingbird,"
Universal-International
Photographed by RUSSELL HARLAN ASC

"Twe Fer The Seesaw,"
Mirisch Argyle Talbot & U A,
Photographed by TED McCORD, ASC

"What Ever Heppened te Baby Jane?"
Warner Brothers,
Photographed by ERNEST HALLER ASC

COLOR

"Sypsy,"
Warner Brothers
Photographed by HARRY STRADLING, ASC

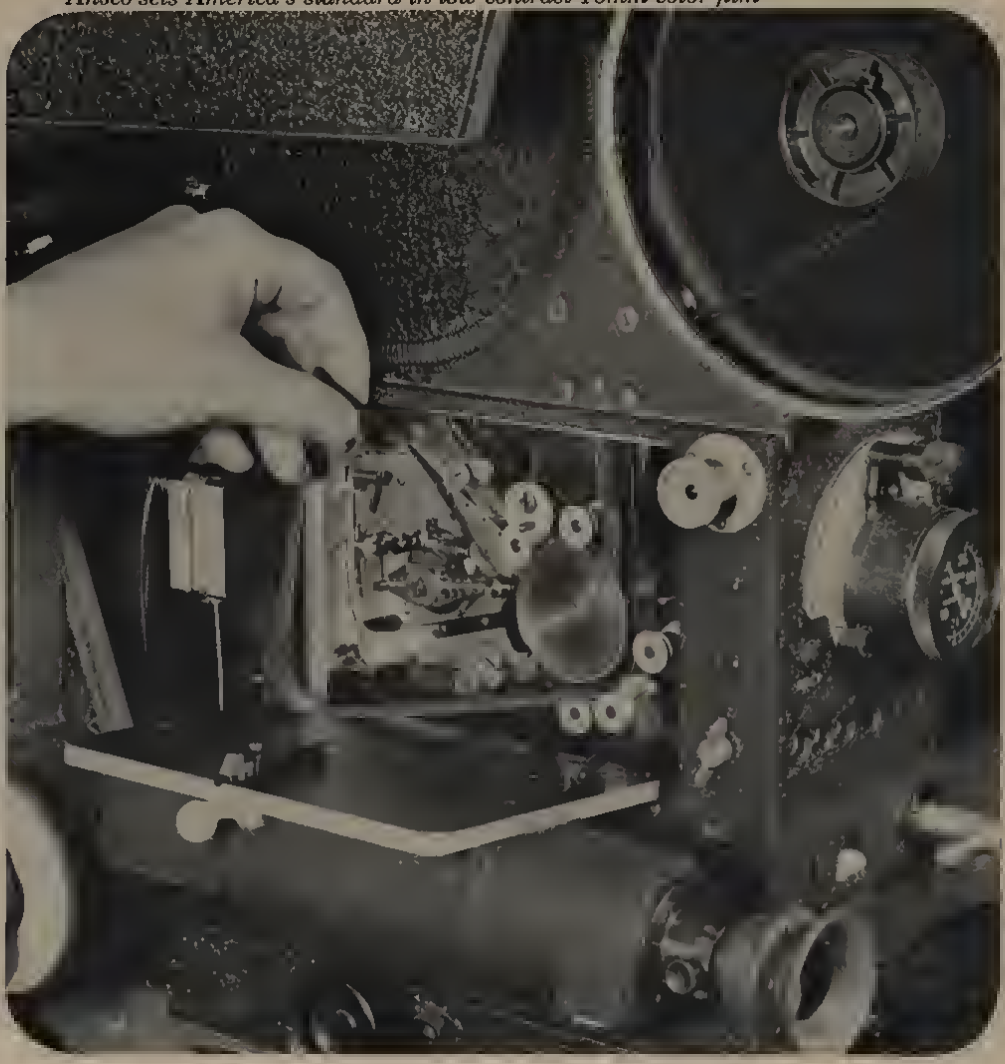
"Hetari"
Paramount
Photographed by RUSSELL HARLAN ASC

"Lawrence Of Arabia,"
Columbia,
Photographed by FRED A. YOUNG, BSC

"Mutiny On The Bounty,"
Metro Goldwyn-Mayer,
Photographed by ROBERT L. SURTEES, ASC

"Wonderful World Of The Brothers Grimm,"
Metro-Goldwyn-Mayer,
Photographed by PAUL C VOGEL, ASC

Ansco sets America's standard in low contrast 16mm color film



Quality color release prints start with Anscochrome Type 242 in your camera

The excellent color fidelity and low contrast of Anscochrome® Type 242 film make it first choice among many quality-conscious professionals.

Type 242 bas fine grain and is unequalled for rendition of natural colors with a unique ability to record detail in shadows. Film speed is 25 with 3200K illumination.

For full details contact your supplier. Or write Ansco, Binghamton, New York.

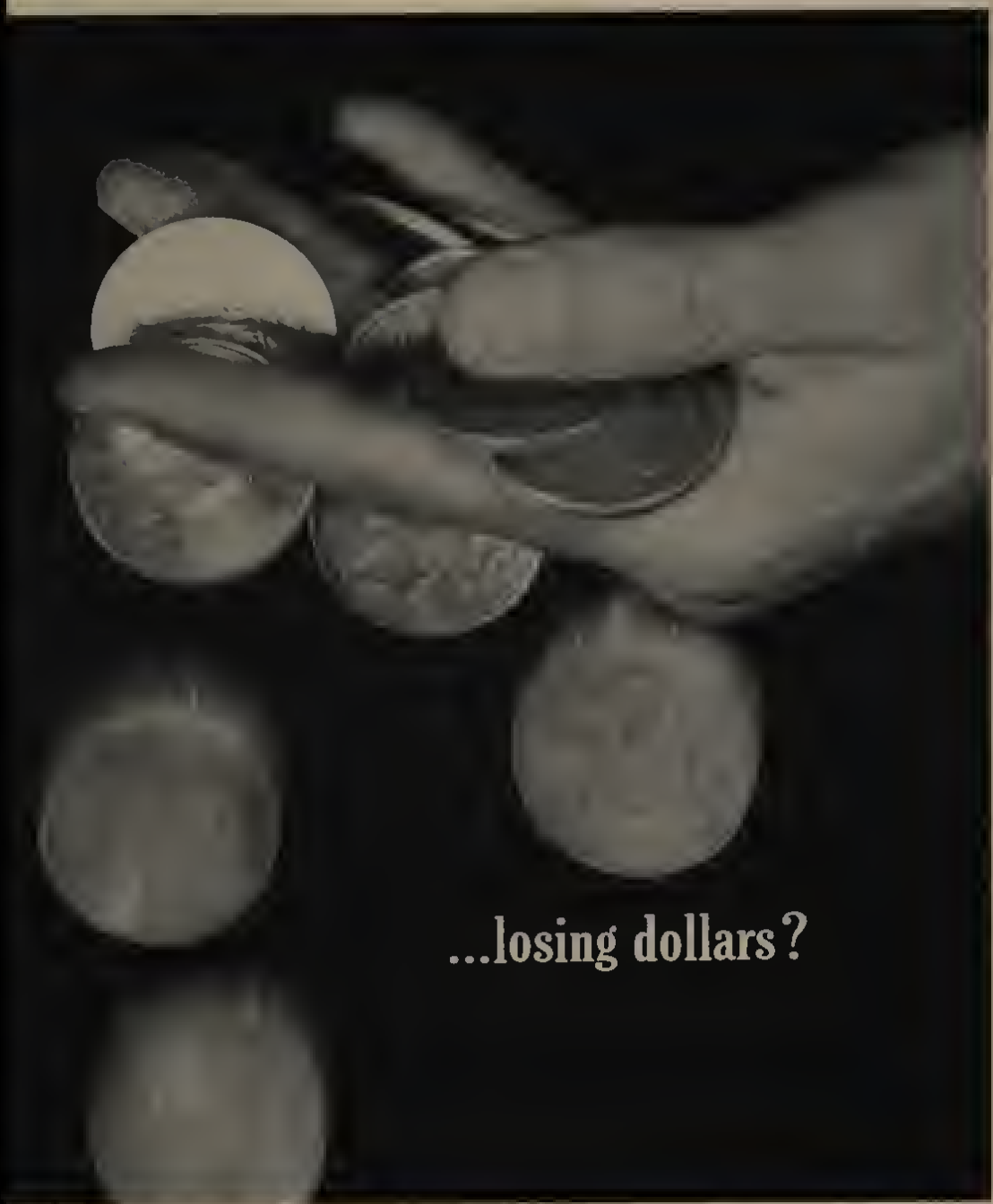
Ansco
Binghamton, N.Y.
General Aniline & Film Corp.

ANSCOCHROME
16mm TYPE 242

ANSCO—America's first manufacturer of photographic materials since 1842.



FRANKLY, YOU'RE DOING JUST THAT, if you're buying top quality negatives—and "economizing" on prints. Fact is: to do its job, a crisp, clear negative must have top quality prints. Otherwise, your message falls flat and you've wasted negative *and* print costs. Moral: Go Eastman *all* the way—negative *and* print-stock. And in the case of questions — production, processing, projection — always get in touch with Eastman Technical Service.



For further information, please write or phone Motion Picture Film Department, **EASTMAN KODAK COMPANY, Rochester 4, N. Y.** Or—for the purchase of film **W. J. German, Inc.** Agents for the sale and distribution of EASTMAN Professional Film for Motion Pictures and TV, Fort Lee, N. J., Chicago, Ill., Hollywood, Calif.

EASTMAN FILM



CLAPSTICKS must be used to indicate the synchronous start of both sound and picture on every take. On film the "start" is determined by locating frame where clapsticks come together, on the sound track, by the audible sound of the clapsticks coming together. (Photo courtesy Ohio Wesleyan College)

IN EDITING method described by author, the same machine used for recording must also be used to reproduce the sound when transferring from ¼-inch tape to sprocketed 16mm magnetic film. (Univ. of So. Calif. photo.)



If You Record On ¼-inch Tape . . .

HOW DO YOU EDIT THE SOUND?

BY LOREN L RYDER

Ryder Sound Services, Hollywood, Calif.

THE INCREASING INTEREST in sound film production among 16mm film makers, using ¼-inch magnetic tape, has revealed need for more general information on basic sound recording procedures. This is evident in the number of letters regularly received by the Editor which pose questions on the subject—some of which are referred to this writer for the answers.

Typical is a recent letter from a reader who indicated he was preparing to undertake a 16mm sound film production using equipment that consisted of a spring motor-driven Bolex H16 camera and a Berlant Concertone 2-track stereo ¼-inch tape recorder having a sync motor.

"If I equip my Bolex with a sync motor," he asked, "and the recorder has a sync motor, and both are fed from the same power source, use of a clapstick and slate should give me the necessary cue marks on picture film and sound tape. But where do I go from there? How do I edit the sound on tape with the picture film?"

The Answer

If the Bolex H16 is driven with a synchronous motor and the Berlant recorder is also sync-motor driven, the sound and picture will be in approximate sync, which should be satisfactory for takes of from one-half minute to one and one-half minutes in length. In the filming and recording of such takes, clapsticks must be used to indicate the synchronous start on tape and film.

The same tape recorder should be used to reproduce the sound when transferring it from ¼-inch tape to 16mm sprocket-driven magnetic tape. The original tape should be on the same feed reel as used during the take and, preferably, the same size take-up reel should be used. Subsequent to the transfer, the 16mm picture can be edited with the 16mm sprocket-driven magnetic film.

An alternate and better system is to record as before, using a sync motor on the camera and a sync motor on the recorder, but recording the audio on only one of the stereo tracks and the 60-cycle supply signal on the second

Continued on Page 182



Choose the ONE PACKAGE deal from JACK A. FROST!

. . saves you TIME and money on PRODUCTION RENTAL needs! . . . .

Gives you Complete, Coordinated SERVICE from START to FINISH!

JACK A. FROST

COBO HALL OFFICE 401 Washington Blvd
Rm 3143, WO 2-1255, Detroit 26, Michigan

MAIN OFFICE: 234 Piquette
TR 3-8030, Detroit 2, Michigan

CANADIAN OFFICE- 6 Shawbridge,
BElmont 2-1145, Toronto, Canada

COLORTRAN'S QUARTZ LIGHTS

They're extremely light weight, versatile, and require no converter. Utilizing the relatively new quartz-iodine lamp in a specially-engineered reflector, the Quartz-Kings provide a high volume of photographic illumination of excellent quality.

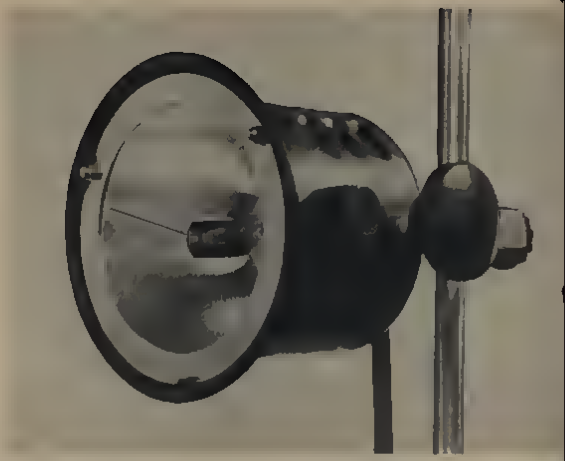


FIG 1—THE NEW Quartz-King "Duel" features a two position receptacle (arrow) for the quartz-iodine lamp unit. A wide flood beam is provided with the lamp in forward position, medium flood and more concentrated illumination with the lamp in the rear position

COLORTRAN, which pioneered the first effective use of boosted-voltage illumination for photography and ultimately made "ColorTran" a household word among film makers the world over, is the first major lighting equipment manufacturer to adapt the quartz-iodine lamp to full-scale motion picture set lighting.

Following extensive experiments and tests that revealed what could and could not be done with the tiny Q-I light source, ColorTran has come up with a series of lighting units that provide powerful controlled photographic illumination, utilizing the maximum efficiency of the Q-I unit.



FIG 2—ANOTHER INNOVATION introduced with the Quartz-King "Duel" is the "intensifier" accessory, shown here. It snaps on to front of the lamp housing where it gathers up spill light and concentrates it in a more effective beam of illumination.

Much has been published in these pages in recent months regarding recently-introduced photo lights equipped with the quartz-iodine lamp—a product whose real potentials for cinematographers was not generally recognized until Sylvania placed its well-known Sun Gun on the market. Its importance was further emphasized when, in April last year, the Academy of Motion Picture Arts and Sciences honored the Sylvania Sun Gun with a Class II Technical Award.

But our report here is essentially about the new ColorTran lights that utilize the quartz-iodine illumination source. What has been stated above is merely to establish the introduction in the film industry of Q-I lamps, insofar as they promised an interesting new light source for cinematography.

The first thing that ColorTran engineers discovered was that the quartz-iodine lamp required an entirely new type housing and reflector for the most effective illumination of motion picture interiors. They finally came up with a housing that not only took advantage of all the lamp's high-intensity illumination but also effectively amplified this illumination output as did no other lighting unit thus far designed to take Q-I lamps. ColorTran's resulting product—the Quartz-King—found immediate acceptance among photographers who require a compact, lightweight and powerful illumination source to meet the increasing demands of on-loca-

tion filming, TV film production, and industrial and in-plant motion picture photography.

The Quartz-King reflector has been carefully engineered to gather up and project the maximum illumination output of the Q-I lamp—a small tubular unit about 3-inches long and a half-inch in diameter and having the unusual ability to maintain an undiminishing level of intensity and color temperature during its "rated" life. ColorTran has accomplished this by special texturing of the Quartz-King reflector surface and by positioning the lamp within the reflector to produce a light beam completely free of hot spots, filament pattern or banding even when used as close as ten feet from the subject.

The first Quartz-King unit—the "Quartz-King 650," which was introduced a little over a year ago, utilized a 650-watt quartz-iodine lamp in a medium-flood housing and operated directly from standard household current. Unlike with ColorTran lamps, no power booster was required. Its projected light beam was round rather than oval, which characterized some Q-I photo lights, and it produced 390 foot candles of illumination at a distance of ten feet. All pre-production tests of the lamp were made under carefully controlled laboratory conditions with the Q-I lamp (a Sylvania DWY 650-watt, 3400°K) positioned ten feet from the test board. The line voltage was sustained at 120 volts with the aid of a Variac and 1% precision voltmeter.

More recently, ColorTran has brought out its Quartz-King 1000, utilizing the more powerful 1000-watt Q-I lamp, and provided it with a range of accessories making it suitable for just about every lighting need of the small motion picture studio, in-plant and industrial film producer, and on-location filming of interiors by major studios.

The lighting unit which this report is intended to specifically examine is the newest of all Quartz-Kings—the Quartz-King Dual—which is available in both 650-watt and 1000-watt sizes. What makes the "Dual" different from the Quartz-Kings which preceded it is, that incorporated in the housing is a two-position mounting for the Q-I tubular lamp unit. With the lamp mounted in the forward position—on the first pair of clip-on contact pins—the light pattern produced by the Dual is a wide flood (see Figs. 2 and 4). When mounted in the rear position—farther back in the housing—the light pattern produced is a medium flood. Changing position of the Q-I lamp takes about two seconds. The pins are spring-loaded and the lamp easily snaps into the selected position. Of course, to change the lamp during use, it must be allowed to cool sufficiently for handling.

As with the "650" and "1000," the quartz-iodine lamps used in the "Dual" operate directly from

Continued on Page 178

FIG 3—Graphs below show relative light intensities of both the Dual 650-watt and Dual 1000-watt Quartz-Kings with the Q-I lamp in forward and rear positions and with and without the intensifier accessory in place. References A, B, C, and D correspond to similar references in illustration below. Fig 4

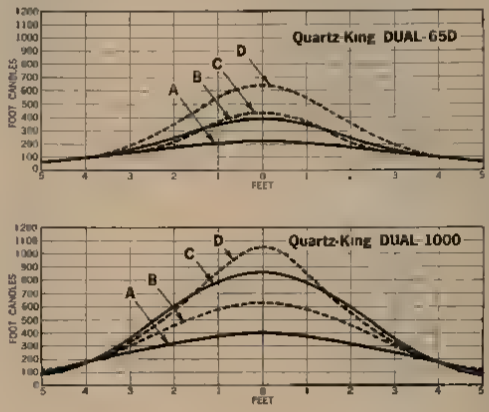
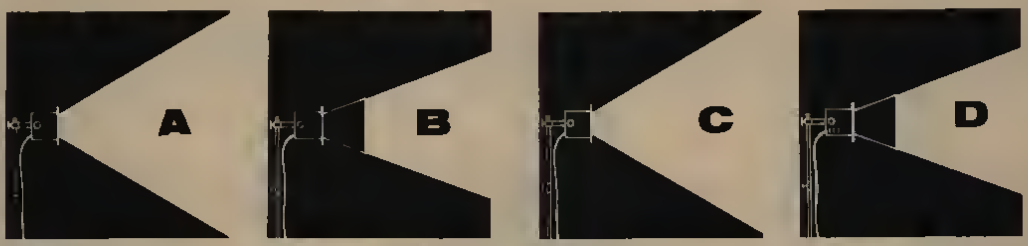


FIG 4—Diagrams below show graphically the relative differences in the light beams and foot candle output of the Quartz-King 'Dual' photo light with the Q-I lamp in the front and rear position and with the addition of the intensifier



Wide Flood
(Lamp in forward position)
220 foot-candles, Dual-650
400 foot-candles, Dual-1000

Wide Flood, Intensified
(Lamp in forward position, with intensifier skirt)
430 foot-candles, Dual-650
620 foot-candles, Dual-1000

Medium Flood
(Lamp in rear position)
390 foot-candles, Dual-650
850 foot-candles, Dual-1000

Medium Flood, Intensified
(Lamp in rear position, with intensifier skirt)
640 foot-candles, Dual-650
1035 foot-candles, Dual-1000

Inspect every foot before it leaves your plant with the HFC High Speed Heavy Duty Inspection Projectors -- 16mm & 35mm models now available.

NEW

The projector is a converted front shutter Simplex with a two pin intermittent, 16mm or 35/32 film runs at a speed of 144 ft per minuta while 35mm film runs at a speed of 165 ft. per minute

1. A variac controls the light intensity
2. A 500 watt lamp is used for 16mm and a 1,000 watt for 35mm (a blower is used to cool the lamphouse)
3. A 2½ inch projection lens is furnished with each unit.
4. A start stop lever controls the power to the lamp and motor
5. The magazine and take up core takes up to 3,000 ft. of film.
6. Upper guide rollers are made to handle the film from either direction of the feed reel.
7. A free wheeling take off flange is provided in the magazine.
8. A lamp near the takeup reel permits hand inspection of the film prior to takeup

NOUVEAU

Le projecteur contient un obturateur Simplex anterieur transformé avec deux clavettes intermittent Les films de 16mm ou 35/32 tournent avec une vitesse de 144 pieds a la minute, tandis que les films de 35mm tournent avec une vitesse de 165 pieds a la minute

1. Le regulateur de voltage d intensité d'eclairage.
2. La lampe de 500 watt est nécessaire pour les films de 16mm, et de 1000 watt, pour les films da 35mm (un ventilateur est mise pour rafraichir la chambre de la lampa).
3. L'objectif da 2½ est instalé.
4. La manatte da mise an marcha et d'arret controle an meme temps la lampe et le moteur
5. La boite de films avec noyau peut contenir 3000 pieds du films
6. La roue supérieure est construite de maniere de recevoir le film dans les deux directions nourrie par la bobine centrale
7. Une roue est instalée pour libérer rapidement le film de la boite
8. La lampe se trouve pres de la bobine recepteuse, et donne toute facilité pour inspecter le film a main dans le projecteur



NUOVO

Questi proiettori sono Simplex transformati, otturatore al fronte, maccanismo di scatto di due punte La velocitá di proiezione in 16 o 35/32mm e di 144 piedi per minuto, e in 35mm, di 165 piedi per minuto

1. Controllo manuale della luminositá della lampada
2. Lampeda di 500 watt per 16mm e di 1000 watt per 35mm
3. Obbiattivo di proiezione di 2½"
4. Maniglia per controllo di motore e lampada di proiezione
5. La cassetta porta pellicola puo contenere 3000 piedi
6. I rulli superiori di guida sono construiti per operare con film provenente di ambi lati della bobina svolgitrice.
7. Disco con montatura sporgente nel magazzino.
8. Una lampadina illumina la bobina avvolgitrice permettendo l'ispezione manuale del film prima cha si avvolga nel proiettore

NUEVO

Esta máquina es un proyector simplex convertido, obturador al frente y movimiento intermitente a doble grifa Para 16mm o 35/32mm, la velocidad fija de proyección es de 144 pies por minuto, para 35mm as de 165 pies por minuto

1. Un reostato controla la intensidad de la lampera da proyección.
2. Para 16mm se usa una lampara de 500 watt, y una de 1000 watt para 35mm (un chorro de aire ventila las lámperas en ambos casos)
3. Cada unidad está provista de un lente de proyección de 2 pulgadas y media
4. Una palanca de control opera el motor y la lampara simultaneamente
5. Capacidad de proyección. rollos de hasta 3000'.
6. Los rodillos de guia superiores operan con la pelicula en ambas direcciones
7. La tapa de la bobina de carga es desenroscable
8. Una lampara ubicada junto a la bobina de toma permite la inspección manual de la pellcula antes que se rebobine en la bobina superior del proyector

designers and manufacturers of film and video tape editing equipment

HOLLYWOOD FILM COMPANY

REELS / CANS / CASES

956 N Seward, Hollywood 38, Calif , HO 2 3284 • 122 W Kinzie, Chicago 10, Ill , 644 1940 • 524 W 43rd St , N Y 36, N Y LO 3 1546

Laboratory Procedure For 35mm Color

A brief description of the steps required to produce top-quality prints.

MOTION PICTURE FILM laboratories are experiencing a steady increase in 35mm color production. Much of this has come from established 35mm color film producers who now are doing a greater volume of production, from 35mm producers who are moving more and more from B&W production to color, especially those producing television films, and from those who are producing in 35mm color for the first time.

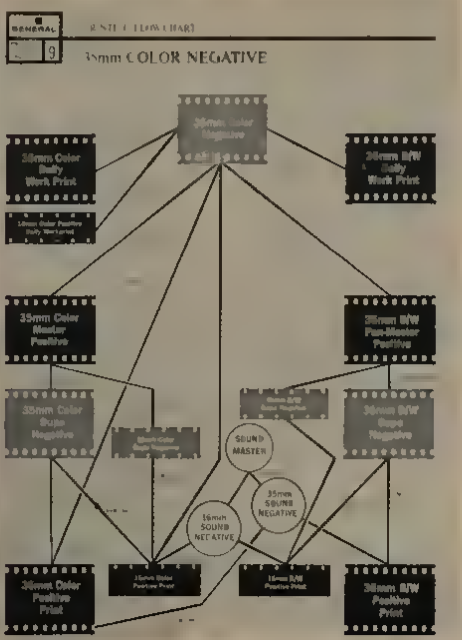
For some of our readers in these groups, it may be well to review the materials, procedures and options that are involved after the laboratory receives your 35mm color negative for processing and printing.

Recently, General Film Laboratories issued a series of flow charts that graphically illustrate the various steps that are followed by this laboratory in producing work prints, master positives, dupe negatives, etc., and finally, the important positive or release print. Two of these charts relating to the production of color release prints, starting with 35mm color negative, are reproduced on this page. (Copies of the originals plus others in the series are available from General Film Laboratories on request.) A careful study of the charts reproduced here will enable the reader to better understand the various steps and the intricate routes which some color productions must take through the laboratory.

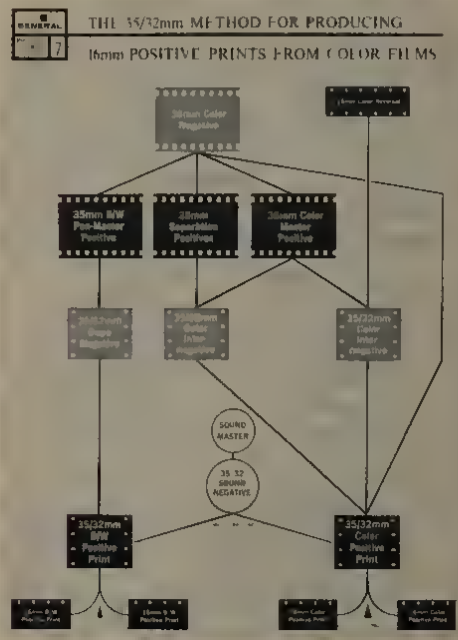
The laboratory services required in 35mm color work are about the same as in 35mm black-and-white—but higher costs are involved, and more choices of method are available. As in 35mm black-and-white, a negative material is used in the camera. Also, as in black-and-white, release prints may be made directly from the edited negative, or from an intermediate or dupe negative. Thus, the stages of laboratory handling of 35mm black-and-white and 35mm color are the same, but an analysis of color handling will show the differences.

Negative Processing: After exposure, the 35mm color negative is turned over to the laboratory, along with the camera log, with takes marked either to be printed or to be removed after processing. Within

Continued on Page 173



THIS CHART shows progressive steps required in the production of release prints from 35mm color negative



HOW GENERAL FILM LABORATORIES produces 16mm positive prints of 35mm color negatives, using 35/32mm method

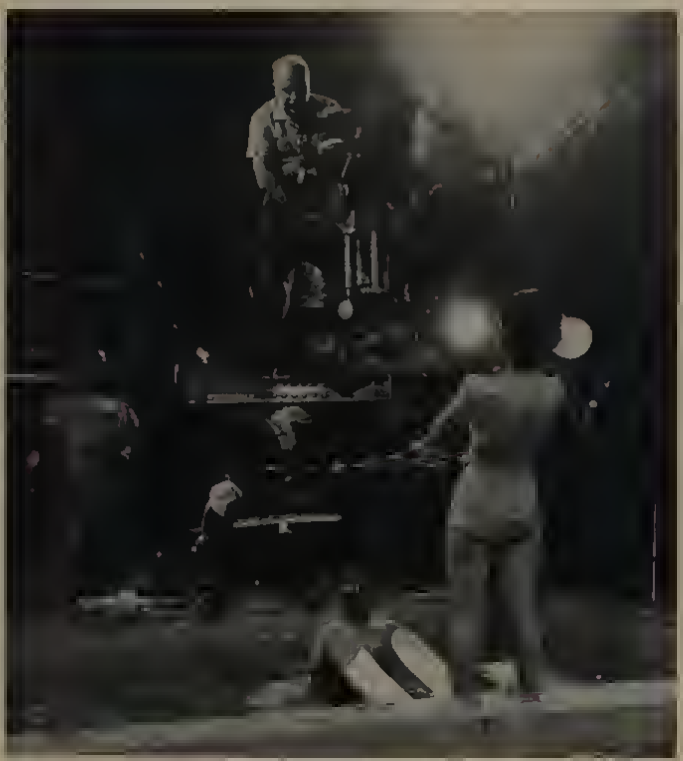
To Be Convincing, It Must Be Realistic

Here, in o nutshell, is the key to successful ond convincing photogrophy of motion pictures for theotres ond television.

BY FREDERICK FOSTER

RECAI L FOR A MOMENT any outstanding job of cinematography and you will invariably remember that it was the authentic lighting and a camera treatment with the bold stamp of meticulous pre-production planning that contributed most to its success—made it stick in your memory.

Before any cinematographer can express through photography a situation or subject convincingly, he must first be convinced of it himself; he must understand it; he must have had in his own past experience a knowledge and familiarity of the subject or situation in a measure comparable to that which he now wisbes to express photographically. In every artistic endeavor this fact is recognized. Elsewhere in the motion picture industry, writers, directors and actors agree that the most convincing results follow where the thinking and efforts are based to a great extent upon the personal experience of the individual.



GIVEN THE SAME scene to light and photograph, different cinematographers each would do it a little differently depending upon their knowledge or concept of the situation to be portrayed. Here, Robert Tobey, ASC, brings the boom-mounted Mitchell camera into place to photograph a scene for a 'Hawaiian Eye' TV film on a Warner Brothers' sound stage.

It will probably Be argued tbat the cinematographer's task is more mechanical than artistic—demanding merely a photographic record of what others place before his lens. To a certain extent, of course, this is sometimes true; but if we will consider this fact—that, given the same scene to light and photograpb, different cinematographers each would do it differently—it must be agreed that, despite all commercial considerations and any collectivized nature of film-production, individual expression does play a vital part in motion picture photography. This opinion is strongly supported by most veteran cinematographers of the sound stages.

"I firmly believe that our work can be entirely convincing only when we base it on substantial personal knowledge or experience, or memories of things comparable with those we seek to put on the screen," said one Hollywood cameraman recently. "In the case of my most recent picture, extensive research and study of the subject gave me an insight that approached substantially what I might bave gained had it been possible to bave experienced life in the mythical world portrayed in the picture."

It is quite improbable, of course, that every cinematographer will have experienced situations and emotions absolutely identical with those of every scene be is called on to photograph. But his general experience and knowledge should be such that the majority of scenes

Continued on Page 178

CECO* professional jr.

Tripod with heavy duty grooved Tripod Legs



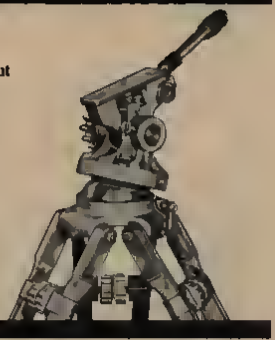
Standard Equipment for all Famous CECO Pro Jr. Tripod Heads

Pro Jr Tripod is better than ever with new Heavy Duty Grooved tripod leg design. Assures greater rigidity, no matter how far legs are extended. Heavy Duty Groove design guarantees herculean gripping power, because there's almost twice the gripping surface. Modern, rounded leg shape adds strength and durability to the wood. Comes equipped with indispensible double knob leg locks which assure equal pressure on each leg. Available with new ball joint swivel or standard base plate.

When you are looking for the best in a tripod, buy Professional Junior—*the tripod designed with the professional in mind!*

CECO Pro Jr. Friction Head with Ball Joint Swivel

Allows really fast, easy leveling without adjusting tripod legs. Fits any Pro Jr Tripod with adapter base plate. Has same exclusive features as standard Pro Jr Friction head . Pan & Tilt tension controls, accessible camera mounting knob, adjustable interchangeable telescoping pan handle. Skilfully designed and engineered for long dependable service. Unconditionally guaranteed—*the World's Standard of Tripod Quality!*



CECO Pro Jr. Fluid Head

The tripod head with smooth-as-silk maneuverability. Silicone fluid unaffected by extreme temperature range. Won't dive in locked position. Guaranteed leakproof. *The undisputed performance champ!*

*CECO — trademark of Camera Equipment Co



CECO Ball Socket Swivel Joint Adapter For Pro Jr. Tripod Heads

A one piece adapter which fits quickly, easily on to any Pro Jr Head. For use on new swivel base tripod or standard Pro Jr tripod with ball socket adapter base plate.

CAMERA EQUIPMENT CO

CAMERA EQUIPMENT CO., INC.

A SUBSIDIARY OF CECO INDUSTRIES, INC.

- **NEW YORK, N. Y.**
  315 West 43rd St • JUdson 6-1420
- **HIALEAH, FLORIDA**
  51 East 10th Ave • TUxedo 8-4604
- **HOLLYWOOD, CALIFORNIA**
  6510 Santa Monica Blvd. • HOllywood 9-8321



FIG. 1—Author demonstrates his zoom lens motor drive mounted on Pan Cinor varifocal lens on Bolex camera. Enclosed micro switches are at 1 and 2, the unit's motor at 3, and the zoom lever at 4.



FIG. 2—Looking at unit from opposite side we see zoom lens lever coupled to control arm at 4. Battery for driving zoom motor is at 5 and 3-position switch at 6.

MOTOR FOR A ZOOM LENS

Remote control electric drive enables cameraman to pan or tilt and operate zoom lens simultaneously with ease.

By ROY ZEPER

MANUFACTURERS of zoom lenses have so concentrated on improving the optics of such lenses that one of the photographer's greatest needs—a motor-driven zoom lens—has received little or no attention. As far as I know, no such device applicable to zoom lenses now on the market is presently available.

For the lone cinematographer working with a zoom, panning and tilting the camera simultaneously while operating the zoom control lever is exceedingly difficult. Putting the zoom control in the handle of the pan head, enabling panning and zooming to be controlled by one hand, seemed a most logical solution . . . and a goal I set out recently to accomplish.

Earlier, I had designed a motor drive for my Pan Cinor zoom lens which enabled me to operate my zoom-equipped Bolex H-16 mounted on the front of my car for a sequence of special low-angle moving camera shots. Zooming was controlled remotely from the car's dashboard. The complete set-up was illustrated and described in an article in the May, 1961, issue of *American Cinematographer*.

The first consideration in constructing such a gadget was the method by which it would be enclosed and mounted on the zoom lens without having to alter the Pan Cinor and its zooming lever in any way. I have utilized an opaque plastic sheet, cut to required shape and the narrowest section formed to encircle the zoom lens itself. A strip of moleskin applied to the inside of the encircling plastic protects the lens housing from abrasion.

On the right-hand side, a 24-volt 1-rpm reversible motor was mounted and positioned so the motor shaft extended through the panel of the enclosure at a point corresponding to the pivotal point of the zoom lens operating lever (Fig. 1). An arm mounted at one end of this motor shaft has its free end angled at 45 degrees and is secured to the end of the zoom lever by means of a machine screw, as shown at (4) in Figs. 1 and 2.

Two micro-switches, shown at (1) and (2) in Fig. 3, are located at points corresponding with the 17mm and 85mm focal length positions of the zoom

lens operating lever. During a zoom, when the motor-driven arm contacts either switch, power to the motor—(3) in Fig. 1—is cut off, stopping the zoom operation. If desired, the zoom can be stopped at any intermediate point—the same as when operated by hand—or the operation can be set in motion in the opposite direction at the discretion of the camera operator by means of the control switch, (6) in Fig. 2. In other words, the device operates forward and reverse to effect zoom-ins and zoom-outs.

Power for driving the zoom control motor is a 24-volt battery mounted on the handle of the tripod head, (5) in Fig. 2, with the voltage reduced by means of a small rheostat. In practice, it has been

Continued on Page 177

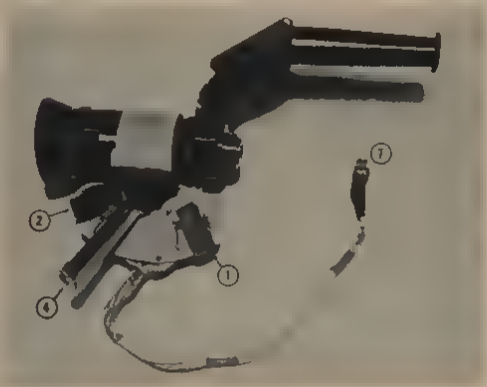


FIG. 3—Cover panel of zoom control is removed to show components 1, 2, and 4 correspond with same numbers in Fig. 1; 7 is 4 prong electrical connection for switch and power source.

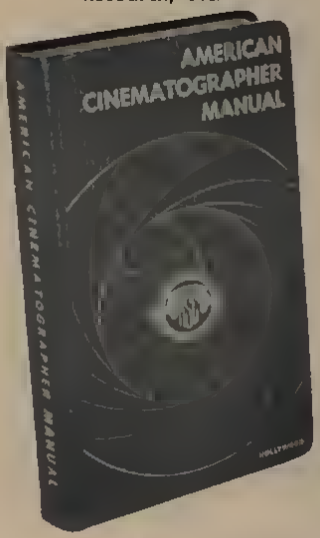
FIG. 4—Author's Bolex H16 camera with motorized zoom lens mounted on front of automobile for making low-angle moving-camera zoom shots. Zoom lens and camera motor are remote controlled from driver's seat.



MOST RELIABLE GUIDE!

. if you shoot motion pictures for

TV or Theatres
Industry
Education
Government
Research, Etc.



There's something to help you on every page of this fact-packed book!

Never before a helpful book like this! Gives detailed answers to hundreds of problems and questions related to theatrical, TV, industrial, military, educational and documentary film production.

Informational text covers data never before published on panning speeds, optical effects, ultra high-speed photography, underwater cinematography, background plates, process shots, traveling mattes, day for night photography, color temperature, etc.

Charts, tables and diagrams give instant answers to problems relating to lens angles, filter factors, shutter openings, camera speeds, exposure, lighting, aspect ratios, etc. Order your copy today!

$7.50
Post Paid

AMERICAN CINEMATOGRAPHER MANUAL
P O Box 2230 Hollywood 28 Calif

Please send me ____ copies of the American CINEMATOGRAPHER MANUAL

Paymt enclosed Ship C O D

Name

Street & No

City Zone

State

*For orders mailed within California please add 4% sales tax



PHOTOGRAPHING products on an assembly-line with the camera mounted high on boom of Porta-Dolly



SO LIGHT AND compact, the Porta-Dolly can easily be loaded into station wagon by two men

Their Problems Hinged On Lack of a Dolly

So this enterprising film producing company designed and built its own, now has a promising subsidiary business of building Porta-dollies for others.

By JOSEPH HENRY

COUNTRYMAN-KLANG is a name long identified with industrial and television film production. Because this company recently encountered problems in renting camera dollies suited to its particular needs, it set out to design and build its own. Today, Countryman-Klang is an equipment manufacturer as well as film producer—maker of the Porta-dolly, a portable, hydraulically-operated mobile camera unit suitable for both television and motion picture photography.*

Inception of the Porta-dolly occurred when a Countryman-Klang crew was preparing to shoot a TV commercial in which the product was to be shown sitting on a rock in the middle of a rushing mountain stream. For this, a miniature waterfall and mountain stream set, some 20 feet in length, had been constructed on the studio sound stage. The script called for an overhead dolly shot of the waterfall and the camera then dollying down the course of the stream until it was almost directly over the product. At this point, the camera was to drop down for a straight-on closeup shot of it.

To achieve this, a plank was mounted crosswise, where the camera head normally goes, on a dolly rented for the purpose—with the camera on one end and a counterbalance on the other. Eventually, after a number of takes, this rig did the job. But it was an arduous and time-consuming procedure. Thought headman Tom Countryman, there must be a better way.

It was this photographic undertaking and this thought that led Countryman-Klang to develop the Porta-dolly, which now is being marketed.

In the beginning, there were several primary considerations: The dolly must have a 360-degree boom. It must be sturdy, completely portable, and small and light enough to be transported in a station wagon. It must be inexpensive. It must be able to do almost everything a large dolly could do.

Countryman turned to the principles of racing car construction, with emphasis on light weight ma-

*Countryman Klang Film Productions, Inc., Times Bldg. Minneapolis 1 Minnesota

terials properly stressed (The only casting in the entire unit is the aluminum plate where the camera head fits Otherwise, welding has been used throughout)

In the interest of light weight, ease of transportation and low cost, the Porta-dolly has been kept very simple A hand pump pre-loads an accumulator, so the dolly can be used even in the field An optional electric motor for pre-loading the accumulator is now being developed Control valves are within easy reach of the cameraman, a convenience where a small crew is used

Individual screw-type, high pressure needle valves permit full control of boom movement up or down, from creep to rapid, with extreme smoothness Speed of the boom movement may be changed at will during a take With smooth and silent up or down motion at any speed, the dolly poses no problem of extraneous noise during sound filming. An easily removable cable guard is available for use in studio work

With the Porta dolly, Countryman-Klang found many of their problems solved, and they now were able to take advantage of many previously unavailable shots and camera angles The 360 degree boom enables a cameraman to change relative camera position without removing the dolly from its tracks The maximum high camera position of 60 inches and low of 12 inches afford infinite variety in camera angles Because the entire hydraulic system is incorporated within the boom, the boom may be completely removed from the dolly bed and mounted elsewhere by means of four tie down clamps.

The dolly will accommodate the heaviest of standard motion picture cameras—up to and including 180-pound television cameras Because it has three hole positions in the stabilizer bar, it is possible to shoot straight down without the use of a wedge—covering an area 4 by 5 feet in extent for a top or exploded view. Two men can easily load the dolly into a station wagon, and it is narrow enough to move easily through the average household doorway

Other specifications include: length of bed 53½ inches; low camera position, 12 inches, high position, 60 inches. boom rotation. 360 degrees; wheels are 8" in diameter with hard rubber tires; double-lock steering in any position: two floor jacks; heavy

EXCLUSIVE • NEW • EXCLUSIVE • NEW • EXCLUSIVE

WHAT'S A MINI MONITOR?

IT LOOKS LIKE THIS:



Height—2⅜ inches
Width—4¼ inches
Depth—3¾ inches
Weight—11 oz.

Price
$49.50

IS IT A...

- playback monitor for tape recorders (Stellavox, etc)
- sound reader, used with synchronizer
- extra booth speaker
- field amplifier
- field sound reader
- sound editing monitor
- sound reader for 8mm magnetic
- public address amplifier
- field p.a. amplifier
- phone amplifier hi & lo impedence
- remote speaker system
- amplifier to drive auxiliary 8" speaker
- CONVERTS YOUR OPTICAL ONLY MOVIOLA TO OPTICAL MAGNETIC IN 30 SECONDS

THE ANSWER IS YES!

And it has dozens of other uses, too!



F & B MINI MONITOR A miniature transistorized battery powered (standard 9 volt transistor radio battery) magnetic sound reader complete with amplifier and speaker A compact unit which will be the handiest gadget in the sound room the editing room, projection booth or on location

Synchronizer Bracket & Magnetic Head Connector Cable $6.95

Moviola Magnetic Head & Bracket $25.00

Designed and Manufactured by

FLORMAN & BABB, INC.

Serving the World's Finest Film Makers

68 West 45th St., New York 36, N. Y. • MU 2-2928

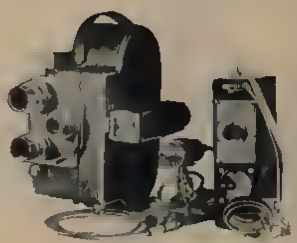
NEW • EXCLUSIVE • NEW • EXCLUSIVE • NEW

SOUND FOR YOUR BOLEX H16 or H8 CAMERA

TAKE SOUND PICTURES! Perfectly synchronized sound recorded on tape simultaneously with pictures on film

Complete unit includes mechanism section mounted to camera, amplifier with carrying strap, microphone, cords, headset, etc.

No camera alterations required. Unit mounts on camera same as cover and appears as part of it.



Further information on request.

$265.00 F.O.B. Detroit

LOUIS S. UHLER. 15778 Wyoming Ave., Detroit 38, Mich Phone UN 1-4663, Cable UHLCIMA

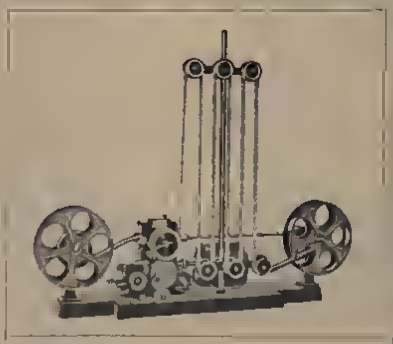


One-Two-Three

AND

FILM EDGE NUMBERS ARE EASY TO SEE

a *Write for brochure*



This ADVANCED Moy Visible Film Edge Numbering Machine simplifies matching 16mm to 35mm with direct numerical reference between both sizes....**$3750**

STANDARD MODELS: Designed to edge number every foot of 16mm 17½mm, 35mm films and simplify the task of checking titles and footage. MOY EDGE NUMBERING replaces cue marks, perforations, messy crayons, punches and embossing—does not mutilate film. Both negative and positive films can be numbered. Non magnetic parts do not affect magnetic film **$2395**

SPECIAL 16/35/70mm Combination **$4475**

CONVERSION KITS For changing operation from 16mm to 35mm or 35mm to 16mm **$875**

S.O.S. PHOTO-CINE-OPTICS, Inc. 602 West 52nd St., New York 19—PLaza 7-0440
Western Branch: 6331 Hollywood Blvd. Hollywood, Calif.

SEE OFFERINGS OF EXTRA SPECIAL VALUES ON PAGES 138, 140 and 144

duty hand pump, hydraulic accumulator stores pressure sufficient to raise and lower camera twice during one take.

The following are some examples of actual Porta-dolly use in interesting or unusual shooting situations by Countryman Klang camera crews:

In-plant Shooting: The problem was to film a plant assembly line in action, employing both long shots and close-ups. The assembly lines were situated in pairs, with a narrow aisle between each pair and just barely enough room to erect a tripod. But with a tripod, the camera would still have been in a restricted position in relation to the subject. By running the Porta-dolly between two lines, with the boom elevated directly over the first line and shooting the second, it was possible to get all necessary shots with a single camera set-up.

Small Products Shooting. In shooting footage of the use and features of a reel-type lawnmower in a natural outdoor setting, it was necessary to go from a high, over-all camera angle to a low detail shot. This was done without moving the Porta-dolly position simply by swinging the boom and lowering it. This film also incorporated

PRECISION® FILM EDITING & LABORATORY EQUIPMENT

MOVISCOP 16mm Viewer with Model 600 RL Optical sound reader and base. Model 800 RL optical-magnetic sound reader can also be used with this system.

Net Price
Model 600 RL
$195.00



Net Price of Base
$39.50

16mm OPTICAL SOUND READER MODEL 650RL
Net Price
$169.50

Both viewers are interlocked for perfect lip sync matching of picture to track



Net Price of Base
$21.50

Power film slitter
16mm to double 8mm

Look for this trademark



film slitter



For information and prices write

Designers and Manufacturers of Equipment for the Motion Picture and TV Industries

PRECISION LABORATORIES
DIVISION OF PRECISION CINE EQUIPMENT CORPORATION
928-930 EAST 51st STREET BROOKLYN 3, N. Y.

an example of the unusual camera techniques possible with the Porta-dolly. For one shot, the boom was swung to the side and dropped close to the ground. Then the mower approached the camera in a direct frontal shot. As the mower reached the camera, the camera was raised, allowing the mower to pass directly beneath for a most unusual angle shot.

Rough Country Shooting. During filming in the Kansas oil fields, the Porta-dolly was placed in the rear of a station wagon, with the dolly's front wheels hanging over the tailgate for added stability. In filming drilling operations at scattered locations, the camera was never removed from the station wagon which became, quite literally, a mobile camera platform. When a camera position change was necessary, the station wagon was simply moved, with obvious savings in set-up time.

Mobile Shots. To make moving camera shots from a car usually requires tying down the tripod. When a Porta-dolly was used, Countryman-Klang cameramen found it sufficiently steady to permit shooting from the moving wagon with the front wheels of the dolly just hanging over the tail gate. By swinging the boom to one side, it was also possible to shoot straight ahead.

Although the Porta dolly was developed primarily for the use of small- to medium-sized film operations, it has been found that larger firms find it useful as a second dolly, especially where a highly portable dolly is desired. For television use, the TV camera head is removed from its pedestal and mounted on the Porta-dolly. Greater variety of camera movement and lower camera angles are claimed for this unit than are otherwise possible with the regulation TV camera assembly.

Through use, Countryman Klang discovered a couple of applications they hadn't even thought of when they developed their dolly. First, because of its light weight (320 pounds) and portability, it makes an excellent rental unit. Second, it saves a lot of time and muscle on locations in transporting lights, cable, camera and sound equipment. With its ease of movement and ample, unobstructed platform space, the Porta-dolly is simply loaded with equipment and used as a hand truck until time for its normal use. ■

LAB PROCEDURE FOR COLOR

Continued From Page 165

GFL, 35mm color negative is processed daily, the negative then immediately edited to remove takes not to be printed and the remaining negative delivered to the printing department.

Printing of Dailies. The producer has several choices in ordering dailies from his color negative. He may order fully corrected dailies, which will give him 35mm positive color footage of release print quality. Naturally since this requires the greatest amount of time, and must achieve a top quality of color correction, it is the most expensive product of this type. Or, he may order color dailies which will have so called "simple corrections," and this will deliver to him corrected dailies which will cut together to make an acceptable edited work print. Or, some producers order black-and-white dailies, as a money-saving device. However, the producer who orders black and white dailies should have some basis on which to judge the color quality in his negative, and should also order color prints from at least one scene in each separate camera setup or sequence.

At General, color dailies are ready for delivery or pickup by early afternoon on the day following the night-time processing. Black-and-white dailies from color are available by 10:00 a.m. of that day.

Editing the Dailies. The producer goes through the various stages of editing, using the dailies, until he arrives at an approved edited workprint, with scene order and scene lengths the same as they are to appear in the release prints. (Obviously, this does not rule out future editing changes.)

Opticals. 35mm color negative may be cut into A&B rolls so that fades and dissolves may be provided in normal printing. However, majority practice is to have optical dupe sections printed, to provide fades and disolves as well as wipes, super-imposures, and other types of special effects.

If optical sections are to be made, the producer should order from the lab 35mm color interpositives of those scenes to be projection-printed to create the effect wanted. In the projection (or optical) printing process, this will then result in a 35mm color internegative section incorporating the effect — and this internegative section will be cut into the 35mm edited camera color negative.



We're well equipped . .



We're well-equipped
to handle anyone

• Sound • Editorial
• Laboratory Services

Capital

CAPITAL FILM LABORATORIES, INC
470 E ST., S.W., WASHINGTON 24, D.C. • DISTRICT 7-1717
SOUND, EDITORIAL AND ALL MOTION PICTURE LABORATORY SERVICES

Cut Negative After the edited workprint is approved and any required optical internegative sections have been prepared the 35mm camera color negative is cut (incorporating any 35mm color optical sections) to match the edited workprint.

Track Recording Sound recording is not the subject of this article but it is important to state at this point that a 35mm negative sound track is required for printing.

First Trial Composite Print If release printing is to be from the cut negative a first trial is ordered at this point. If release printing is to be from an internegative, recommended practice would still call for a first trial at this stage whether the negative is in single rolls or A&B rolls. This provides the producer with a print incorporating density and color timing, optical effects and sound track so that he may review and evaluate the quality of all production and lab work. On the basis of this viewing he will decide whether to approve this first trial print, or make further changes before spending money on any additional laboratory services.

However, if release printing is to be from an internegative, the producer may elect to go direct to a 35mm color interpositive, then to either a 35mm or 16mm color internegative and have the first trial made from the internegative. He pays a higher price for the interpositive because the laboratory must now make the necessary color corrections in the interpositive (not having had the opportunity of making the color corrections in a first trial from the cut negative). And, the producer gambles that all of his own work—editing, scene matches, sound sync, etc.—will prove to be acceptable. If he finds it necessary to make changes in the photo scenes, he's lost both the interpositive and the internegative because the lab has to start over again with the re-edited original negative.

35mm Color Interpositive We've already discussed this, except for one point. A 35mm color interpositive is required whether or not a color internegative is to be made. When an internegative is to be made for use in release printing, it is printed from the interpositive. If printing is to be from the cut camera negative, a 35mm color interpositive is made "for protection" and goes on standby, to be used in making an internegative should the original negative show wear or damage. (As already noted, 35mm color inter-

FLASHBACK TO YESTERYEAR



1923—The place—Rome, Italy. And the man behind the camera—Arthur C. Miller, ASC, photographing scenes for Samuel Goldwyn's "The Eternal City," a story about the beginning of the Fascist movement in Italy that ultimately brought Benito Mussolini to power. The camera—a Mitchell actually. Mitchell camera number 3, i.e., the third off the assembly line. Others from left are director George Fitzmaurice, actress Barbara Lamar and actor Bert Lytel.

The production, as Miller recalls, was a tough one, made so by a number of unlooked-for situations that developed, ranging from strikes to expulsion from Italy of the director and others. One Sunday, says Miller, the company worked on five different locations in and around Rome, using 2500 extras. All of them had to walk from one shooting location to another.

Mussolini, whether by design or because he liked to hobnob with Hollywood movie people, invited the company to make his office its headquarters while in Rome. Here Miller stored his camera and equipment at the close of each day's work and he saw or talked with Mussolini almost every day. Once the Dictator posed for him, sitting behind his huge desk.

When "The Eternal City" was about half finished, Mussolini chanced to see another film which Fitzmaurice had directed there three years earlier and which poked fun at many Italians and Italian customs. This so enraged the Dictator he summoned Fitzmaurice and his assistant to his office and ordered them to leave Italy at once. Miller, realizing he had all the negative of the picture that had been shot to date locked in a trunk in his hotel room, anticipated that Mussolini might attempt to locate and confiscate it. To avoid this, he and his wife (who had accompanied him to Italy) quietly checked out of their hotel that night and took the train for Switzerland. They failed to reckon with the customs officers at the border who, upon their arrival there, proceeded to search the Millers' three trunks. But luck was with them. The officers, after going through two of the trunks and finding nothing but clothing, assumed the third contained the same, routinely stamped it "OK" and waved them on. From here on their journey was without incident. They arrived safely in New York with the negative, and the picture was completed in a New York studio. ■

Custom-Made!
Hand Calibrated, Professional Favorite!

SPECTRA
"COMBI-500" Professional Exposure Meter



500X MORE SENSITIVE! Combines a Selenium Cell plus ultra-sensitive Cadmium Sulphide Cell to give more than 500X greater sensitivity than ordinary meters. Actually 100X more sensitive than the previous SPECTRA PROFESSIONAL model! Strictly professional and hand calibrated, produced in limited quantities. ASA range 1 to 32,000, measures incident or reflected light. If there's any light, SPECTRA measures it precisely! Previous Spectra models can be converted. It's the Lifetime Meter!

For tech data: SCOPUS, INC., 404 Park Ave. S., N.Y. 16
Mfg. by Photo Research Corp., Hollywood 38, Calif.

SAVE MONEY
When Filming In Europe
By Renting Your
Camera Equipment From

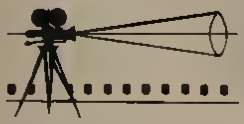
CHEVEREAU
PARIS, FRANCE

We Service The Entire Continent

CAMERAS, including the Mitchell BFC 65mm
CRANES
DOLLIES



20 RUE DE LA CHINE
PARIS 20, FRANCE
Tels. MEN 9472 PYR 5104
Cable: Cameratec Paris



SOUND!

CRISP CLEAR AND LIGHT

(IN WEIGHT)

16mm MAGNASYNC RECORDER



MODEL X-400 TYPE 15 is especially designed for servicing "On-the Go" producers who prefer every thing in one case—playback power amplifier, monitor loudspeaker, recorder, footage counter, rewind, torque motors—an ALL-IN ONE magnaphonic sound system (S.M.P.T.E. standard performance) complete in a single easy-to-carry case. Will accommodate standard 1200 foot film reels

Write for illustrated brochure

PRICED ONLY $1385

Model X 400 for extra lightweight portability, from $1190

S.O.S. carries the complete line of Magnasync recording systems

S.O.S. PHOTO-CINE-OPTICS, Inc. 602 West 52nd St., New York 19—PLaza 7-0440 Western Branch 6331 Holly'd Blvd Hollywood Calif

SEE OFFERINGS OF EXTRA-SPECIAL VALUES ON PAGES 138, 140 and 144

This is the latest IMPROVED

CINEKAD JUNIOR DOLLY



Used Nationally by Discriminating Cameramen

This 3-Wheel Collapsible Dolly is especially designed to meet the demand for convenient mobility of cameras on location or in the studio

The new model instead of the 4" wheels is constructed with 5" heavy duty rubber-tired swivel wheels.

Write for more details and prices

CINEKAD ENGINEERING CO.

763 10th Ave., N.Y., N.Y., PLaza 7-3511

FOR MORE INFORMATION ***about products or services advertised in this issue, use the convenient postage-paid inquiry card facing the last page. Simply fill it out and mail. We'll do the rest.***

—AMERICAN CINEMATOGRAPHER

positives are also made for scenes to be optically printed.)

Color Internegative. A 35mm color internegative may be ordered, to be used in 35mm contact or 16mm reduction release printing, or a 16mm reduction color internegative for 16mm contact release printing. (If B/W prints are required, for best results a B&W panchromatic fine grain positive should be made from the color negative. From this either a 35mm or 16mm reduction B&W dupe negative can be made at this stage.)

Color internegatives may be made also from 35mm separation positives, the original 35mm intermediate positive material. However, the interpositive has practically replaced the three-strip positive separations process.

First Trial from Internegative (or from Dupe Negative): This is the last stage on the laboratory production line prior to release printing. Since new stages and materials have come in since a first trial was made from the 35mm cut color negative, a new "proof" should be struck off for final approval. This will be any one (or several) of various things—35mm or 16mm color print from 35mm color internegative, 16mm color from 16mm color internegative, 35mm or 16mm B&W from 35mm B&W dupe negative, a 16mm B&W from 16mm B&W dupe negative.

Release Prints: This, as may be noted from Flow Chart No. 9 at the beginning of this article, is where we've been heading. After the final approval of a trial print is received, the lab is ready to roll on the release printing order—35mm or 16mm, color or black-and white.

The increasing use of 35mm color film, especially in many of the newer TV film series, has brought with it increasing demand for blowing up 16mm color to 35mm. Can 16mm be blown up to 35mm color successfully? Yes, *if* the 16mm original color film is well exposed with both good definition and color saturation. General has handled a number of such orders in recent months, with 16mm Ektachrome edited in A roll, or A and B rolls, optically printed to a 35mm color negative. The orders included theatrical release, industrial films, and other non theatrical materials. In all cases, liquid gate printing was utilized in making the 35mm color negative.

We should caution, however, that 16 to-35 blow-up is not the preferred way

Acmade Feet-Operated Splicer with Tungsten Tipped Blades



Combination 16mm 35mm Model

$1495

This splicer is constructed, as is usual with ACMADE products, of the finest materials and workmanship. All castings are of the best quality and the top body and cutter arms are seasoned to prevent distortion after machining. The machining is carried out to limits of ± .0005" in order that the cutter blades shall close in a dead parallel manner. The cutter blades are made from stainless steel with Tungsten Carbide inserts, and afterwards ground lapped and polished to a limit of ± .0002" thickness and the cutting edges relieved by 1°. The Tungsten Carbide inserts will have indefinite life and will not require sharpening as with other types. A heater unit is installed in the top body of the machine. The top light in a well glass fitting is attached to the body of the machine and also an inspection light in the waste bin together with cement bottle and brush. A scraper block is supplied and also a scraper block setting jib and support shelf rubber covered. The whole machine is finished in first quality grey hammer and all metal parts other than cutter blades are hard flash chromed.

ACMADE MARK II
EDITING TABLE



$3295

f.o.b. New York

Makes Editing Easy!

Operation of this simple, efficient editing machine can be mastered in minutes. Continuous movement provides absolute safety for your film. Instant controls and declutching allows up to 50% increase speed and efficiency in editing. Any combination of 2 or 3, 16mm or 35mm channels, plus magnetic and optical sound available.

WRITE FOR DETAILED BROCHURE

Serving the World's Finest Film Makers

FLORMAN & BABB

68 West 45th Street New York 36, N.Y.
MU 2-2928

Another Fine Product From ACMADE

AUTOMATIC BUTT SPLICER

Cuts, Splices, Applies Magic Mylar Automatically!



New, with no fuss, mess or waste. It is possible to splice, repair, butt splice, or strengthen splices on all types of film—positive, negative, magnetic — even DuPont Cronar or other bases.



The cutting arm, shown in operating position is used by pressing the chrome button for cutting both sides of the film simultaneously. The film, has been registered on pins in the horizontal channel. The cutting blade is easily replaced.



The splicing tape is registered on precision pins and held in place until automatically applied to the film by swinging the arm over and pressing the chrome button, cutting the adhesive and applying it — in perfect register to the film.

Model 35 for 35mm. Model 16 for 16mm—$295

in which to arrive at 35mm color release. A 35mm color print from 35mm color negative exposed in the camera will be the better print—in many comparisions, much the better print—but, blow up work is practical, under the qualifications mentioned above. ■

The foregoing article was originally published in Vol. 3, No. 6 of the General Film *Rewind*. It is condensed and reprinted here by permission of General Film Laboratories, Hollywood. The flow charts at the beginning of the article are two of a series recently distributed by General.—EDITOR.

ZOOM LENS MOTOR

Continued From Page 169

found that operating the motor at around 6 to 10 volts produces a slow, pleasing zoom with a smoothness rarely obtainable through manual operation of the lens.

The 5-pole, double-throw, on-off-on toggle switch, shown at 6 in Fig. 2, determines the electrical polarity fed to the reversible motor. With the switch in forward position, the zoom lever moves forward; in the extreme reverse position it causes the zoom lever to move backwards. In the central position, the switch is off.

In operation, if the motor driven zoom lever is not stopped at any intermediate point and is allowed to continue until it contacts the micro switch that arrests its movement, halting the operation in no way adversely affects the zoom control mechanism and the zoom comes to a smooth stop. Where the switch is moved from one operating position to the other to reverse the direction of the zoom, i.e.—from a zoom-in to a zoom-out—the torque of the motor is reversed and a smooth change in direction of the zoom is effected.

Still another feature inherent in the control switch described above is the means it provides also to stop and start the camera motor simultaneously with operation of the zoom lens, when desired. The camera motor is powered by a separate battery and can be switched on simultaneously as the zoom control switch is moved to either "on" position.

Figure 4 shows author's Bolex camera equipped with the motorized Pan Cinor zoom lens mounted on the front bumper of his car for making combina

Specialized

LIGHTING EQUIPMENT

for

MOTION PICTURE, STILL

and

TELEVISION STUDIOS

Write for A Copy of Our Catalog J on Your Letterhead

Mole-Richardson Co.

937 NORTH SYCAMORE AVENUE
HOLLYWOOD 36, CALIF.

Automatic Daylight Processing



DEVELOPING TANK
- Processes up to 200 Ft.
- 8mm-16mm-35mm-70mm
- Movie—X-Ray—Microfilm
- Motor-driven portable
- Uniform Density Assured
- 400 Ft Tank Available



FILM DRYER
- Motor driven—Heated
- Speedy drying
- Automatic shrinkage allowance
- Stainless steel and aluminum construction
- Easily assembled without tools
- Compact Portable

Guaranteed Write for Free Literature

Micro Record Corp. 427-14 South Ave Beacon, N Y

ASIA IS COVERED BY

FARKAS FILM COMPANY

424 LI PO CHUN BUILDING

HONG KONG

COMPLETE 16/MM & 35/MM PRODUCTION FACILITIES

professionals use

SPLICE-O-FILM

the world's finest splicer



- Easy strong splices in just 8 seconds
- Accurate to 1/10,000th inch
- Electric heat and automatic scraper
- Money-back guarantee

$175.00

Write for complete information and a copy of our film room equipment catalog

THE HARWALD CO 1245 CHICAGO AVENUE EVANSTON ILLINOIS

16MM

COLOR and B-&-W

Processing and Printing
A&B Roll Conforming
Sound Transferring

Write For Complete Price List

MIDWESTERN FILM LAB

161 W. Huron St., Chicago, Ill

Phone: 664-8410

NEW IMPROVED PROCESS
LAMINATED SOUND STRIPING

THE Vitatone CO. 8MM—16MM 2½¢ per ft

380 Ft Minimum Order — Quality Guaranteed
Send for Free Brochure

7316½ SA ATLANTIC BLVD., LOS ANGELES 22 CAL.

tion moving camera zoom shots. Operation of both camera and zoom lens is by remote control from the driver's seat. Zoom shots made this way, of course, are a matter of luck as it is impossible to observe the zoom effect in the lens' reflex finder. So zooming is virtually a blind operation — but effective for some subject matter.

With the camera mounted on a tripod, its another story. Here motor-driven zoom effects are velvet smooth—something not always possible when zooming some varifocal lenses manually.

QUARTZ LIGHTS

Continued From Page 143

110/120-volts AC or DC and require comparatively low amperage for their light output. The 650-watt lamps are available in a range of three different color temperatures—3200°K, 3350°K and 3400°K. The 1000-watt lamp is available only in 3400°K. The rated life of the 3200°K lamp, which has a heavier filament than the others, is 100 hours—an important consideration.

An innovation introduced for the first time with the Quartz King Dual photo light is the intensifier accessory—a snap-on conical device (Fig. 1) which forms an extension of the lamp housing and serves to concentrate the light and eliminate spill, thereby almost doubling the light intensity. This is graphically illustrated in the illustration, Fig. 1, and augmented by the performance graphs, Fig. 3.

Fig. 4 illustrates how buildup of the light intensity is accomplished with either the Dual-650 or Dual-1000 by (1) changing the Q-1 lamp to the rear position within the lamp housing and (2) by the addition of the intensifier. By changing the lamp unit from wide flood to medium flood in the Dual-1000, for example, and adding the intensifier, the effective light output can be jumped from 620 foot candles to 1035 foot candles.

Both the 650-watt and 1000-watt Quartz Kings are available with a universal yoke mounting, as pictured in Figs. 1 and 2, permitting them to be readily mounted on conventional tubular light stands. However, the film maker with a considerable investment in other types of portable lighting equipment can readily adapt his supporting equipment to Quartz Kings. The latter are also available with integral screw bases—medium screw for the 650-watt lamps and mogul for the 1000-watt. The 650s can be used in any heavy-duty porcelain socket that takes lamps having a medium base, same as found on photofloods, PAR and ordinary household lamps. The 1000-watt lamps with the mogul base require the larger, heavy-duty mogul receptacle, but they may also be used in regular receptacles with an adapter.

With the development of the growing line of Quartz King photo lights, Color-Tran has not overlooked the need for the professional illuminating accessories which every cinematographer finds essential to his work. Accessory equipment available for all Quartz-King lamps include accessory holder for scrims, filters, etc., two-leaf barndoor; four-leaf barndoor; daffer-grip lamp mounts; daylight conversion filter; heat filter, single and double scrims, and holder for spun glass or gel diffusers.

According to ColorTran Industries, the illumination provided by the 650-watt Quartz King is equivalent to that of a conventional 2-K studio set lamp, and that of the 1000-watt Quartz-King equivalent to a 5-K studio lamp. Here a comparison of the weights of these lamps will prove interesting. The 2-K weighs roughly about 29 pounds, the 650-watt Quartz-King but 15 ounces. The 5-K weighs 54½ pounds and its equivalent — the 1000-watt Quartz-King 20 ounces!

One could pack around a lot of photographic light in a suitcase full of Quartz-Lights. ■

MUST BE REALISTIC

Continued From Page 166

to come before his lens will find some common factor in his memory. Some factor, that is, which will suggest how such a scene should really appear to the eye—which will enable him to visualize the scene and give it complete pictorial honesty in the photographic treatment.

It is unlikely that a cinematographer would be able to correctly visualize the arrangement and lighting of a room in a mansion if all of his life had been spent in hotels or rooming houses. It would be like a blind man trying to describe an object he had never seen. To draw, perhaps, a better comparison,

how close could a person whose only experience in home life had been in the squalor of slums come to portraying convincingly a scene laid in the home of a cultured millionaire?

This is a factor that is too often overlooked in all phases of motion pic ture production The aim, when producing a picture, is to present a story in scenes which give it at least an illusion of actuality This illusion can only be attained when every phase of production writing, acting, direction, settings, and cinematography—strikes a keynote of sincerity based on human experience In other words, when all of the artists concerned are artistically honest—with themselves and with their work

Directors of photography in Hollywood believe that a vitally important and often neglected factor necessary to bringing about honesty and authenticity in cinematography is more closely coordinated pre production preparation in which the director of photography participates More and more, production experience is proving that the picture benefits immeasurably where the director of photography is allowed ample time for thorough preparation—a chance to study the entire script, to consult with the director and the art director, and to discuss makeup problems as they relate to the photography of the picture Unfortunately, there is a tendency today to avoid such preparation, especially in TV film production

In any feature film production, where time and circumstances permit, it is advantageous for the cameraman to make photographic tests of the star and sometimes of the key sets, both interiors and location

During actual production the director of photography with a penchant for strict authenticity will make it a point to pay as much attention to the photographic and lighting treatment of the set itself as to that of the players Essentially, of course, the set is primarily a backdrop against which the players enact the story; but it should nevertheless be a wholly convincing background Therefore it should be treated with equal care Actually, the set serves two purposes: it must be a convincing, believable background for the action, and it must form a vital part of the composition Thus, it should be lit not only with an eye to enhancing the effect of actuality, but also to enhance the pictorial value

EXCLUSIVE · NEW · EXCLUSIVE · NEW · EXCLUSIVE

new, improved
super-efficient
CINE VOICE CONVERSION



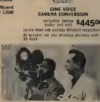
Designed and developed by Florman & Babb's Chief Engineer, Ray Emeritz after extensive testing in the field by several of New York's top-notch cameramen F & B has finally achieved maximum efficiency and absolutely silent operation in a new 400 ft Cine Voice Conversion

- A true torque motor — Idles at ⅓ power, when camera is turned on Assumes full power This system prevents excessive heating
- Torque motor and Veeder counter assembly completely encased in insulated housing for protection from cold, rain, dust, etc.
- Veeder counter effectively silenced
- Torque motor provides sufficient power to take either 400 ft or 1200 ft Mitchell magazines.
- Neon camera running light.



CINE VOICE CAMERA CONVERSION
including torque motor and belt $445.00
(price does not include Mitchell magazines)
At present we can promise delivery with n 15 days

Accessories Available
Behind the lens filter slot $45 00
Lens Turret Lock for Zoom Lens operation $25 00
NEW ANGENIUX 12mm ~ 120mm ZOOM LENS "C" MOUNT WITH SIDE-VIEW FINDER IN STOCK! $895 00



John Fletcher ABC cameraman with Ray Emeritz F & B's Chief Engineer who developed the new Cine Voice Conversion

Serving the World's Finest Film Makers
FLORMAN & BABB, INC.
68 West 45th St., New York 36, N. Y. MU 2-2928

EXCLUSIVE · NEW · EXCLUSIVE · NEW · EXCLUSIVE

Filming in Europe?

PRODUCTION FACILITIES,
CAMERA EQUIPMENT HIRE,
SOUND RECORDING,
TECHNICIANS, TRANSPORT,
16 OR 35MM, ANYWHERE.

SAMUELSON FILM SERVICE LIMITED

Just Cable "SAMCINE, London"

Camera Mart

SALE!!

ARRIFLEX 35mm camera, model IIB, 16v motor, matte box, sync control generator, 32mm, 50mm, 85mm Zeiss lenses, 2-200' magazines, case, battery, value over $3,200. Specially offered at $2,195.00

BELL & HOWELL 16mm Filmotion viewer, used, excellent $69.50

SYNCHROMASTER combination 4/35mm-1/70mm synchronizer, two counters, excellent $139.50

EYEMO Q camera, spider turret, sound aperture, 24 volt DC motor, 2-400' mags, camera and mag cases, 25mm, 50mm, 100mm lenses, finder w/matching positive objectives, excellent $525.00

BELL & HOWELL pair arc projectors w/arc lamphouse, 2 rectifiers, 2 lenses, 2 stands, one amplifier, good condition $1,295.00

RCA SOUND PROJECTOR, model 415 w/12" speaker, like brand new, special $395.00

BODDE DOUBLE 4x5 rear projection slide projection pair mounted on stand, complete w/lenses, slide carriers, blowers, step-up transformers, excellent, special $995.00

GENARCO 300 watt slide projector, 6 slide rotary carrier, lens, blower, remote control for TV or display, list $, excellent condition, special $495.00

SPECULART JR. slide projector, 3¼x4 slides, holder for 40 slides, 2KW lamp, blower, remote control and automatic, self-contained unit, list $900.00, excellent conditino, special $425.00

UHLER 16mm semi-automatic continuous printer, separate printing head for sound and picture, value $1700. Special $650.00

FEARLESS tripod head, heavy duty model, extra wide plate for use w/blimp or BNC, excellent $295.00

CAMART SCOUT TRIPOD, lightweight model, friction head for pan and tilt, good for most 16mm lightweight cameras, list $104.50, demonstrator $79.50

ARRIFLEX 16mm Camera, 3 lenses, Variable speed motor, matte box, Case, Battery Excellent. $1495.00

BOLEX H-16 camera w/Pan Cinor 70mm Reflex Zoom Lens. Very fine $375.00

All prices are FOB New York

the CAMERA MART inc.
1845 BROADWAY
NEW YORK 23, N. Y.
Cable: Camermart

CONVERT YOUR SERIES 20 MOVIOLA TO MULTIPLE SOUND EDITING



with the **CAMART ADD-**

for further information write: **the CAMERA MART**

Needless to say, the extent to which a cinematographer on a feature production can carry out his ideas depends greatly upon the director with whom he works. Some directors become engrossed in the action and dialogue, and more or less accept the cinematographer as a matter of course. Others, while not directly interested in the purely pictorial phases of the production, nevertheless realize that the camerawork is important, and work closely with the cinematographer for the pictorial perfection such cooperation makes possible.

The advent of wide-screen processes has had the effect today of directing a great deal more of the producer's and director's attention toward the cinematographer and the photography than ever before, because all these new processes begin with the photography and are based on revolutionary camera techniques. The cinematographer today is deserving of greatest respect for the talent and experience which he is capable of bringing to a picture entrusted to him to photograph. The veterans especially are uniquely qualified to imbue their lighting and camera work with the artistic honesty that can make the photography a genuine contribution to the production. ■

FIRE TRAINING FILMS

Continued From Page 155

ideas of the technical advisor and in some cases the ideas of the film sponsor.

Another problem encountered in making fire-fighting films is to make scenes appear on the screen the way they appear to the eye of the fireman as though he was seeing the actual live situations.

For instance, fire doesn't look as hot on film as it really is. Therefore, to properly illustrate or reproduce an attack on a fire which has ceiling temperatures of 500 degrees F., the film maker's fire should have a ceiling temperature nearer to 800 degrees F.

A very special problem is created by the smoke and steam accompanying a fire. It often restricts the camera's view, making it difficult to show live action. For this reason, animation is often an effective way to present principles and theory.

With animation action can be slowed down so audiences can really see what's happening. Because of the many distractions and rapid action during a live situation, it's hard to study and carefully analyze principles and theory. Animation elimintaes these problems.

Once the fireman trainee is familiar with the principles, he will be able to understand and appreciate their importance in actual fire fighting demonstrations. For this reason, it is important to use live footage of actual fire fighting to re-emphasize the principles established by the animation.

Animation can also be helpful in showing firemen reasons for visual observations which sometimes go unexplained. Firemen have all seen smoke and steam roll down in front of their face cutting off their view of a fire. Do they really know what is happening? Only animation can



UNIT EXTENSION PLATE

Frankly, we doubt if you will use this many Add-A-Units on a Moviola at one time. We just want to show how Add-A-Unit can be attached for almost unlimited multiple sound editing. Most editors find one or two sufficient. Each unit has individual volume control for mixing optical or magnetic sound

Attaches instantly without drilling or tapping. Removes easily. Comes complete with belt guard, screw, flange and amplifier connections. $259.50

Series 20 sound heads & take ups additional. Prices on request

1845 BROADWAY ■ NEW YORK 23 ■ N. Y. ■ PLAZA 7-6977

(patent pending)

graphically illustrate and explain the peculiar air currents that move the mass of smoke and steam that often cuts off a fireman's view.

Many other real problems are introduced during the actual burning of structures. To help eliminate these problems, the filming operation should be carefully planned before production begins. Even though fires are difficult talent to control and direct, their actions must be fully anticipated.

Pre-planning starts with scouting various locations, with the Technical advisor and film maker working together in the scouting operations. At this time, the technical advisor should study the building's construction, size of the structure, water supply, and nearby buildings. The film maker will be interested in such details as the general appearance of the building, sun direction, various shooting angles, and backgrounds. Here a director's viewfinder will be a useful aid to selecting camera angles.

The film maker should select camera angles that afford the best possible coverage of the scene or subject. During actual burning of a structure, two establishing shots are considered essential in shooting a large fire. One camera should be placed on a car top to facilitate filming the subject having normal perspective, yet at the same time eliminate people walking in front of the camera. The camera thus mobile-mounted, can also be moved quickly whenever necessary.

The second establishing camera should be positioned even higher, to shoot down on the overall operation. Here nearby buildings or a high boom power truck may be used to accomplish the required high angle shots.

Since the so-called establishing cameras are located away from the immediate fire area, they need only minimum mobility. This is helpful when they are equipped with 400-foot magazines to give long, continuous runs.

Medium shots can be filmed by the same two cameras if they have the proper lens complement. This complement usually consists of a wide angle, normal and telephoto lens. The director can coordinate the two cameras by the use of two-way citizens band radio communication with the camera operators.

A third camera should be set up near the fire for closeups and extreme closeups. It should be light and flexible, but should operate on a tripod. Since the film director usually stays close to the fire, he can give personal direction to the third camera. A fourth camera which can be hand held should be available for interior or unplanned shots.

The director and closeup cameraman need full protective clothing as a precautionary means of protecting themselves from falling embers and excessive heat. This will also make it possible for them to enter the burning building, should the need arise. In emergencies, cameramen have been asked to serve as back-up men on hose lines.

And there's still another reason for wearing fireman's equipment. To get in close enough for some shots a cameraman may accidentally move into the field of the other cameras. He will be much less noticeable in such scenes if



"Costume, schmestume! You are one of the most exciting films I have ever unrolled, baby!"

—Der Film Kreis, Germany

LINWOOD DUNN, ASC
Formerly head of RKO Studios Effects Dept
CREATIVE SPECIAL EFFECTS
Complete Advisory and Technical Services
From Story Ideas to Theater Screen
LIQUID GATE PRINTING
FOR 16 35-65-70 MM BLOW UPS
Specialized Laboratory Services
"Over 30 Years of Major Studio Experience"
FILM EFFECTS of Hollywood
1133 N. Highland Ave., Hollywood 38, Calif.
Phone: HO 9-5808 Cable: FILMFX

PATHE PRESENTS:
THE WEBO-M
16 MM REFLEX
PATHE PRODUCTS, INC.
9 Pleasant Street
Providence 6, Rhode Island
Sole U.S.A. Agents for Pathé Société Commerciale et Industrielle

BOLEX ACCESSORIES
By STEVENS
SYNCHRONOUS CAMERA DRIVE
115 volt Bodine Motor 24-Frame Lip-Sync Speed Complete with Safety Clutch, Camera Mounting Base, Forward-Reverse Controls, Condenser, 10-Ft Cable
Special $150
Write for our Bolex Accessory Catalog
STEVENS ENGINEERING CO.
Dept "A", 340 N. Newport Blvd.
Newport Beach, Calif.

L & F PORTABLE CINE PROCESSOR
• Fully Automatic • Daylight Operating
$675.00 (f.o.b. Chicago)

• 16mm or 8/8mm
• Requires no plumbing
• Process 200 Ft. 88W Film in Less Than 1 Hour
• Reversal Processing
• Less Than 1 Gallon of Solution Needed
• 32"x9"x24"H 55 lbs.
Write For Descriptive Literature
SUPERIOR BULK FILM CO.
446-48 N. Wells St. Chicago 10, Illinois


VARIABLE SHUTTERS AND YOLO AUTOMATIC DISSOLVE ATTACHMENTS FOR ALL BOLEX H CAMERAS. ALSO DUAL POWER MAGNIFIERS FOR THE BOLEX REFLEX
PELLEGRINI-PIEK
7 COLEMAN PLACE
MENLO PARK, CAL.

he looks like a fireman.

It is often a problem to get enough closeup shots, particularly when the main burning activity takes place too quickly. To solve this problem, a number of cut-ins and cut-aways should be filmed before and after the fire. Shooting such scenes out of sequence gives the cameraman more time to carefully compose, focus, and fill in heavily shadowed areas with reflectors. Smoke bombs can often be used to enhance scenes shot before, during and after the main fire so they will more readily cut together.

Not all fires demand coverage by two or more cameras. Often only a single camera is needed. This is especially true with interior filming. On interior shots the camera should be kept low so that its view will not be cut off too early by the fire. Smoke and steam usually concentrate at the ceiling level first, then drop down as they cool. Any light for added illumination should also be kept low. It may be necessary to build special light stands for this and to cover all such lights as well as possible to avoid damage from hot embers and water.

Intense heat can force a cameraman and his camera out of a room in which he seeks to film. When this happens, a hole can be chopped in the wall and the camera kept outside the major fire area, greatly decreasing any punishment the cameraman and his equipment must take.

In the production of fire fighting films, fire can consume interior furnishings as well as the condemned buildings used for staging and shooting fire fighting techniques, but this presents a relatively minor problem. Fifteen dollars worth of used furniture from a local auction house will usually furnish a room. Used furniture looks surprisingly good when it's mixed with light, smoke, steam and water.

It makes no difference whether you're shooting interior or exterior scenes, the room or building must be fueled. There must be some way to get the fire started since combustible material normally found in a room is usually moved out. Waste cardboard is a cheap fuel for this purpose and it produces a flame build up similar to actual fire conditions. Use of kerosene or gasoline is not recommended because they produce excessive black smoke.

Recently, to get fuel for a big school house burning, two frame houses were wrecked with a big crane and the pieces of lumber carried by hand into the various rooms of the subject structure.

Structures suitable for fire fighting demonstrations usually are not hard to find. Urban renewal, highway construction, and general modernization of cities have resulted in condemnation of a great many such buildings. Demolition contractors who have charge of the buildings, are usually very cooperative where the structures are to be ignited for training fire fighters. Actually their task of demolition is thus often greatly reduced. One contractor has estimated he saved a thousand dollars by permitting the burning of a large condemned structure.

During the past three years the Iowa State University Film Production Unit has deliberately burned 11 houses, 3 garages, 2 grain elevators, 2 barns, 1 duplex, 1 three-story apartment house, 1 corn crib, and 1 chicken house—all for the purpose of staging scenes for fire training films. In all cases the structures had out-lived their usefulness, and the burnings were a cooperative effort of the university Film Production Unit, Fire Service Extension, and the local cooperating fire department.

Local fire departments usually give their enthusiastic cooperation. Besides doing a public service by participating in the production of educational films, the filming projects afford the firemen extra curricular training in fire fighting techniques — experience they can usually get only in real emergencies. ■

HOW DO YOU EDIT SOUND?

Continued From Page 160

stereo track. This recording of the 60 cycle signal becomes, in effect, a recording of "magnetic sprocket holes" on the tape which have a fixed relationship to the speed of the camera that is driven by the 60-cycle power supply.

In the second method, the audio can be transferred from the ¼-inch tape to sprocket-driven 16mm magnetic film, as described above, except that the 60-cycle synchronizing signal is reproduced from the ¼-inch tape. This signal is amplified through a preamplifier, then a power amplifier, and the output of the power amplifier is used to drive the 16mm sprocket-driven magnetic recorder. This method will assure absolute synchronization for any length of

time—one-half hour, an hour or even more

By using the following procedure, it is possible to do simple editing of 16mm picture and ¼-inch tape without transferring to sprocket-driven magnetic film. The shooting and recording method is the same as in the second procedure described above except that a clapstick is used twice for each take—just before the start and just after the end of each scene. The picture film and the ¼-inch tape are now cut just after the head clapstick marks and just before the tail clapstick marks and the picture and tape are then assembled in the desired sequence.

In reproduction, the synchronizing signal from the tape is run through a preamplifier and a power amplifier. In this case the power amplifier drives a synchronous motor on the projector and the picture and sound will run at the same relative speed.

In this last described system, it is necessary to thread both the projector and tape recorder with a proper length of leader so that when the projector and sound reproducer are started simultaneously by means of a single switch, the two machines will come up to speed together and in sync. Should they fail to do so, synchronization can be achieved by momentarily switching the motor off on the machine that is leading. After a little experience, it is possible to become quite proficient doing this type of editing and projecting. ■

BEHIND THE CAMERAS

Continued From Page 138

METRO-GOLDWYN-MAYER

with Lee Remick and James Garner. Arthur Hiller, director

Arthur Ibbetson, "Murder at the Gallop" (shooting in London) with Margaret Rutherford and Flora Robson. George Pollack, director.

Robert Pittack, ASC, George Clemens, ASC, "Twilight Zone"*

Thomas Tutwiler, ASC, Commercials*.

Milton Krasner, ASC, "Moon Walk" (Enterprise Prod.; P'Vision & Metrocolor) with Shirley Jones and Gig Young. George Sidney, director.

Hasckness Smith, ASC, "Dr. Kildare"*.

Dale Devereaux, ASC, "The Eleventh Hour"*.

William Spencer, ASC, "Sam Benedict"*.

Robert Hauser, "Combat"*.

NBC—New York

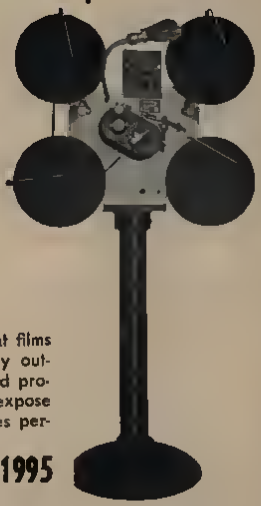
Bernard Dresner, "The World of Darryl Zanuck"*



Rock-Steady Prints

are YOURS with

TEL-Amatic® PRINTER



Prints color, black-&-white, reversal, sound or silent films with rock-steady professional precision. Has many outstanding features found only in much higher priced professional printers. Sufficient light is provided to expose fine grain film. Semi-automatic light change assures perfect exposures. Write for brochure.

PROFESSIONAL *continuous contact sound & picture printer for 16mm or double 8mm films* **Only $1995**

S.O.S. PHOTO-CINE-OPTICS, INC.

602 WEST 52ND STREET NEW YORK 19 N Y • Phone PLaza 7 0440 • Telegram: FAX, N Y.
WESTERN BRANCH: 6331 Hollywood Boulevard, Hollywood 28, California • Phone 467 2124

SEE OFFERINGS OF EXTRA-SPECIAL VALUES ON PAGES 138, 140 and 144

NEW YORK STUDIOS

George Jacobson, "Emmett Kelly Show"*.

PARAMOUNT STUDIOS

Lucien Ballard, ASC, "Wives and Lovers" (Hal Wallis Prod.) with Janet Leigh and Van Johnson. John Rich, director

Lee Garmes, ASC, "Lady in a Cage" (American Entertainment Corp. Prod.) with Olivia de Havilland. Walter Grauman, director.

Joseph Ruttenberg, ASC, "Who's Been Sleeping in my Bed?" (Jack Rose Prod., color) with Dean Martin and Elizabeth Montgomery. Daniel Mann, director

Daniel Fapp, ASC, "A New Kind of Love" with Paul Newman and Joanne Woodward. Melville Shavelson, producer director

Dan Fapp, ASC, Irmin Roberts, ASC, "Fun in Acapulco" (Hal Wallis Prod.) with Elvis Presley, Ursula Andes and Elsa Cardena. Mickey Moore, director

Haskell Boggs, ASC, William Whitley, ASC, "Bonanza"*.

PARAMOUNT SUNSET STUDIOS

Frank Phillips, ASC, "Gunsmoke"*.

PRODUCERS STUDIO

Hal Mohr, ASC, (VPI Prods.) Commercials*

REPUBLIC STUDIOS

Howard Schwartz, ASC, "The Lloyd Bridges Show"*.

Charles Burke, ASC, "Ensign O'Toole".

Jack Swain, "Rawhide"*

Continued on Next Page

QUALITY AND SERVICE

16MM BLACK&WHITE REVERSAL NEGATIVE POSITIVE PRINTING AND PROCESSING

COLOR Processing-

COLOR PRINTING

Work prints—Timed Prints
Color to Color prints—A & B roll prints
Color to B & W prints—Fades Dissolves
Dupe Negative—Multiple prints
Raw stock—Fastax service
Loop printing

Write for complete information

VIDEO FILM LABORATORIES

350 W. 50th St. • NEW YORK 19, N. Y.
JUdson 6-7196

NEW ANGENIEUX 10X ZOOM LENSES

12mm-120mm f2.2 available for all 16mm cameras

25mm-250mm f3.2 available for all 35mm cameras

IN STOCK! Available Immediately

Serving the World's Finest Film Makers

• Lowest Prices!
• Trades Accepted!
WRITE • WIRE • PHONE

FLORMAN & BABB, INC.

68 West 45th St., New York 36, N. Y. MU 2-2928

FROM YOUR 12 VOLT CAR BATTERY

Rubylite CLAMP-ON

DELIVERS 250 WATTS of smooth, even 3400°K light—

$49.50



Rubylite PORTABLE MOVIE LIGHT

Fits any camera. No tools needed, no holes to drill. Long life nickel cadmium battery with built-in charger weighs only 7 lbs. Guaranteed one year.

$199.50 COMPLETE WITH BATTERY



PHOTOMART

FOR BARGAINS IN USED EQUIPMENT
See Classified Advertising on Pages 185 & 186

BEHIND THE CAMERAS

Continued From Preceding Page

TWENTIETH CENTURY-FOX

JOHN NICKOLAUS, JR., "Police Nurse' with Ken Scott and Merry Anders. Maury Dexter, producer director

TWENTIETH CENTURY-FOX, N. Y.

DON MALKAMES, ASC, ARTHUR ORNITZ, "The Laughmakers"*.

UNIVERSAL CITY

RUSSELL HARLAN, ASC, "Man's Favorite Sport?" (Howard Hawks-Gibraltar-Laurel Prod.; Technicolor) with Rock Hudson and Paula Prentiss Howard Hawks, producer-director.

ELLIS THACKERY, ASC, "Wagon Train"*, 'Arrest and Trial"*

FRED MANDL, ASC, "Going My Way"*.

CHARLES LANG, ASC, "Charade" (Stanley Donen Prod., T'color, shooting in Paris) with Cary Grant and Audrey Hepburn Stanley Donen, producer-director.

RAY RENNAHAN, ASC, "Laramie"*.

JACK MACKENZIE, ASC, "Leave It to Beaver"*

WALTER STRENGE, ASC, "Wide Country"*.

CLIFFORD STINE, ASC, "The Brass Bottle" (Randall-Greshler Prod; Eastman Color) with Tony Randall and Burl Ives Harry Keller, director

RUSSELL METTY, ASC, "Captain Newman, M.D." with Gregory Peck and Tony Curtis David Miller, director

JOHN RUSSELL, ASC, BENJAMIN KLINE, ASC, LIONEL LINDON, ASC, "The Birginian"*.

LIONEL LINDON, ASC, "The Virginian"*

WILLIAM MARGULIES, ASC, JOHN WARREN, ASC, "Alcoa Theatre"*

JOHN WARREN, ASC, JOHN RUSSELL, ASC, "McHale's Navy"*.

RAY FLIN, "The Young and the Bold"*.

FRED MANDL, ASC, "Going My Way"*.

JACK MACKENZIE, ASC, "Leave it to Beaver"*

WARNER BROS.

HAROLD LIPSTEIN, ASC, "Palm Springs Weekend" (Technicolor) with Troy Donohue and Connie Stevens, Norman Taurog, director

HAROLD STINE, ASC, RAY FERNSTROM, ASC, "Hawaiian Eye"*.

LUCIEN BALLARD, ASC, "Wall of Noise" with Suzanne Pleshette and Ty Hardin. Richard Wilson, direcor.

HASKELL WEXLER, "America, America" (Athena Enta Corp.) with Stathis Giallelis. Ela Kazan, producer-director

CARL GUTHRIE, ASC, RALPH WOOLSEY, ASC, 'True"*.

BURT GLENNON, "The Deketas"*

ROBERT HOFFMAN, "77 Sunset Strip"*.

ZIV-UNITED ARTISTS

MONROE ASKINS, CURT FETTERS, "Ripcord"*.

INDUSTRY NEWS

Continued from Page 136

sound simultaneously on the same film, and will be used throughout the world by CBS for the production of "on-the-scene" news events and documentary interview type film programs. Sound components for this project were specially designed by the Radio Corporation of America in a joint effort with Mitchell engineers. CBS engineers cooperated in the design and field testing of the new camera, which incorporates the well-known Mitchell pin-registered movement. The camera can be hand held using a 400 foot magazine, but retains a facility for using larger magazines up to 1200 foot capacity. A precision and extremely bright reflex view finder system and magnetic sound recording are two salient features integrated in this new special-purpose Mitchell camera. ●

Course In TV Commercials

A course in "The Broadcast Commercial," directed to both advertisers and advertising students and featuring lectures by advertising and broadcasting leaders and actual production of student-written commercials, will be conducted by Boston University's Division of Continuing Education, beginning February 20.

Under the instruction of William H. McIntosh of Kenyon & Eckhardt Advertising, the 12 meeting weekly course sessions will be on Wednesdays, from 7 to 9 p.m. in the University's Seminar Center, 152 Bay State Rd., Boston ■

BUY, SELL, SWAP HERE!

Largest, Most Productive Classified Ad Section Of Any Publication Serving Makers Of Motion Pictures

STUDIO & PRODUCTION EQUIP.

BELL & HOWELL Model J 16mm printer with 300 Watt high intensity lamp house, roller gate, shoe gate, adapted for air, includes new power supply $2,645.00 Cine Special II with two 100' film chambers, four Ektar lenses, case| all like new $995.00 35mm Western Cine Automatic Splicers, new, with 1-year guarantees list $220.50, now $129.50 210MM C mount Kinoptik F/2.8 lens, new, lists for $400.00, special $199.00 Magnasync Model 602, list $1,725.00, excellent condition $995.00. Magnasync X-400 watt footage counter, lists for $1,242.00, excellent condition $45.00 TSI-DU-5 sound projector, like new $210.00 Harwald Moviemite sound projector $127.00 Auricon Cine Voice W/400' Parrish conversion, case amplifier, 1" lens excellent $740.00 Bell & Howell 17 to 70mm Angenieux zoom lens, demonstrator w/case $245.00 WESTERN CINE SERVICE, INC., 312 So. Pearl, Denver 9, Colorado

---

Auricon Pro 200, Hill-Smith conversion to Pro-600, optical and magnetic sound, optical amplifier only, mike, headset and all cables, case, two Mitchell 600 ft. mags., all in perfect condition . . $1,250.00 Bolex H16T, F/1.8 Lytar, brand new . . $260.00 Cineflex 35mm, three lenses, two motors, six 200 ft. mags., sports finder, silent aperture, deluxe original fitted case, perfect $475.00 Colortran Master-lite, heavyduty senior stand with casters, like new . $40.00. Cine Special I F/1.9 lens excellent $190.00. W. G. CAVANNAUGH P. O. Box 123, Rockledge, Florida

---

5 KW MR SOLARSPOT heads $55.00. 2 KW MR heads, $40.00, 750 BM Keglights with stands, $47.50, 750 single broads with stands, $40.00. Colortran Sr. kit, $100.00. 110 volt door mounted sync motor for Mitchell standard $325.00; Kinovax automatic slater, $450.00, Mitchell 35mm 400' magazines, $60.00; Bodde 4 x 5 background slide projector, $600.00. Bodde 9 x 12 background screen, $100.00. J. BURGI CONTNER, ASC, Blue Seal Sound Devices, P. O. Box 472, New Canaan, Conn.

---

1 Senior Bardwell McAlister 5,000 watts, 7 Juniors 2,000 watts, 12 Mole Richardsons 750 watts, 6 Inkie Dinkies. |All lights are with stands and accessories and 35% off new list.| 1 long heavy Western studio dolly, 3 wheel $750.00, 1 Century, 35mm, RCA projector with Mellograph sound, Selsen interlock and sync motor, $1,500.00. Will sell or trade for 16mm or 35mm Arri, 16mm Mitchell or what have you. GUILD STUDIOS 5, INC., 4770 N.W. 7th Avenue, Miami 37, Florida

---

For highly portable filming special NAGRA tapesrecorder, also portable synch generator for camera also lenses. MAYSLES FILMS, INC., 162 W. 13 St., New York 11, N.Y.

BELL & HOWELL magnetic recording projector model 202, less than 25 hours use. Original price $825.00. Will sacrifice for $375.00. Will give personal guarantee. ROBERT W. WEYENBERG, 820 Winona Way, Appleton, Wisconsin

STUDIO & PRODUCTION EQUIP.

FOR SALE at STOCKDALE & COMPANY, 200 E. 1st So., Salt Lake City, Utah. 05 Maurer camera, 3 lenses, 400' magazine, 12 volt motor, fitted case, $1,500.00. Magnasync 16mm type 15 recorder with torque motor takeups $950.00. Houston CP16 double head printer, $2,500.00. Magnacord Voyager with rangerlene sync head, $500.00.

WALL camera 35mm late type, with double claw registration pin movement, less lenses. Accessories, Mitchell viewfinder, 12-volt motor, two 1,000' magazines, four 400' magazines, sunshade and matt box. Used very little. A fine production camera in excellent condition, $2,250.00. FOB Tampa. JACK WALTON, P.O. Box 1457, Tampa, Fla.

MOVIOLA model LP (green model) has one optical head on picture side, plus one optical and one 16mm magnetic head. Also has provision for additional head. Complete with foot controls, amplifier, footage counter etc. Everything in excellent working order. Best offer. RODEL PRODUCTIONS, INC., 1028 33rd St. NW, Washington 7, D.C.

LEICA M3 with 35mm, 50mm, 90mm, 135mm lenses, wide angle finder, sunshades, filters, Leica exposure meter and other accessories. Over $500 value for only $425. In mint condition, equal to new. Write for details. Box 1463, AMERICAN CINEMATOGRAPHER.

LIGHTING equipment for sale: 1 Creco 5KW, 1 Kliegel #44n16 5 KW, 13 Kliegel #44n8 2 KW, 3 misc. 2 KW, 1 Kliegel 2 KW cone and 2 misc. 750 spots. Most lights have stands and doors. Lights will be sold for best offer. RODEL PRODUCTIONS, INC., 1028 33rd St. NW, Washington, D.C.

MITCHELL 110 volt variable speed motor, latest model, new, $300.00. Kinovax Automatic Slater with arms for NC and BNC, $300.00. DON MALKAMES, ASC, 7 Plymouth Ave., Yonkers, N.Y.

AURICON pro 200 turret lens blimp, variable area noise reduction sound. Cases. Pan Cinor 70 lens. EDWARDS CLEANERS, INC., Portsmouth, Ohio.

MITCHELL hi-speed motor, tach and case, $150.00. Also full size crab dolly, new, $950.00. CARL POTORTI, Lacy Ave., R.D. #1, Morrisville, Penna.

New ANGENIEUX zoom 12-120mm for Arriflex 16. Also one for Auricon very reasonable. MAYSLES FILMS, INC., 162 West 13 St., New York 11, N.Y.

35MM custom blimped background projector, B&H type unit 1 shuttle, 225 amp lamphouse, talk back system, distributor, cables, etc. Excellent condition, $5,400. Some with double head $12,500. BOX 1467, AMERICAN CINEMATOGRAPHER.

AMERICAN CINEMATOGRAPHER
Classified Ad Rates
ARE LOWER
Than for any other publication serving the makers of motion pictures

STUDIO & PRODUCTION EQUIP.

35MM B&H rackover camera |2709| $2,650. BOX 1466, AMERICAN CINEMATOGRAPHER.

BARGAINS: processors, lenses (16 & 35), cameras etc. Write for list. PROFESSIONAL CINE PRODUCTS, 2222 N. Prairie, Dallas, Texas.

BARGAIN: 21 used Cinesalesman continuous 16mm projectors in excellent condition. Will sell all or any part. THOS. J. BARBRE PRODUCTIONS, 2130 S. Bellaire St., Denver 22, Colorado.

125MM (5 inch) f/2 Schneider Xenon lens, coated, T-stopped, in Arriflex mount, equal to new for only $275.00. 25MM (1 inch) f/2.3 Bausch & Lomb Baltar lens, coated in Mitchell mount, equal to new for only $165.00. Torque motor for Arri 16 magazines only $125.00. Box 1456, AMERICAN CINEMATOGRAPHER.

SACRIFICE at nearly half original cost! Cine Special II with 3 Ektar lenses, elec. motor, 2 extra magazines, reflex finder, filters & holders, carrying case. Like new. FRANK McGINNIS, 3802 Crestlake, Birmingham, Mich.

AURICON Super 1200 camera with variable shutter, two 1200' magazines, auto parallex viewfinder, recording galvanometer, NP amplifier, microphone, headset, cables, carrying cases. Less lenses, $3,250.00. FOB Tampa. JACK WALTON, P.O. Box 1457, Tampa, Fla.

16MM AURICON Pro 200, V/A sound, $750. 16mm Auricon Pro 600 (like new) $1,650. 35mm Wall camera, RCA sound, double pull-down, double register pins, etc. $3,900, 17½mm Stancil Hoffman S6 recorder, converter, cables etc., 110-220 volt, $1,950. 70mm Westrex editing machine, Todd A-O conversion, 6 track mag. sound $3,775. BOX 1468, AMERICAN CINEMATOGRAPHER.

PAN Cinor 70 f/2.4 zoom lens C mount viewfinder. Excellent, $150.00. ROBERT RANBERG, 15 Gilmore Road, Red Bluff, Calif.

COLORTRAN super 80 less lamp, with stand. Like new! $50.00. Box 1465, AMERICAN CINEMATOGRAPHER.

EQUIPMENT WANTED

TRY FBB LAST
FOR THE HIGHEST QUOTE ON
USED MOVIE EQUIPMENT
FLORMAN & BABB
68 W. 45th ST., N. Y. 36, N. Y.

WHY SACRIFICE
your production and struggle with old or used equipment when we can trade for cash or new equipment? Let us know what you have and what you need.
THE CAMERA MART, INC.
1845 Broadway PL 7-6977 New York 23, N.Y.

WANTED to buy all types of projection bulbs, spotlight bulbs. ADVANCED SPOTLIGHT SERVICE, Box 206, Passaic, N.J.

Continued on Next Page

RATES: Ads set in lightface type 20¢ per word. Minimum ad $2.00. Text set in lightface capital letters (except 1st word and advertiser's name) 40¢ per word. Modified display format (text set in boldface type available in upper and lower case) $2.00 per line. Send copy with remittance to cover payment to Editorial Office, American Cinematographer, P.O. Box 2230, Hollywood 28, Calif. Forms close 1st of month preceding date of issue.

Classified Ads

Continued from Preceding Page

EQUIPMENT WANTED

INSTANT CASH
HIGHEST PRICES PAID
for your used 16mm and 35mm professional equipment of any kind
URGENTLY NEED
ARRIS, AURICONS, MITCHELLS,
Zoom lenses lab editing lighting & recording equipment for our Rental Program
CONSIGNMENTS WELCOME
NEW—USED
RENT, BUY TRADE, REPAIR
HOLLYWOOD CAMERA COMPANY
8836 SUNSET BLVD., HOLLYWOOD 28 CALIF.

Top Cash Dollar Paid For Good used 35mm Arriflex camera, 400 ft magazines 35mm zoom lens for Arriflex, 35mm viewer (Cece, Ediala etc.) with picture area at least 4x6. Movlola, 35mm Arriflex constant speed and synch motors, Houston or Raby Dolly Nagra Sound Unit, reflectors with stands generator truck, Klieg or Mole Richardson lights and any other equipment for use by rapidly expanding production company. R. MENARD, 714 Howard Avenue, New Orleans, Louisiana. Telephone 525 7056.

WHO SELLS, SWAPS AND BUYS
Whatever in your background lies?
Frozen assets can give you a chill
Say the word and defrost them we will.
CONSIGNMENTS TAKEN—SET YOUR PRICE
Ship it in—OUR PERCENTAGE IS SMALL
Wire us—Phone PL 7 0440
S O S PHOTO CINE OPTICS Inc.
Cable SOSOUND
Dept fc, 602 W. 52nd Street New York 19
Western Branch—6331 Hollywood Blvd.
Hollywood, Calif., Phone 467 2124

WANTED to buy—good used Bell & Howell Model J 16mm printer. GOODWIN FILM SERVICE 407 11th St., Sioux City, Iowa.

WANT Micro Record tank and B&H #70 series cam. body 10501 Ilona Ave., Los Angeles 64 Calif. GR 7-9830.

SERVICES AVAILABLE

CAMERAMAN—EDITOR. Heavy experience documenting missile research and development. Presently engaged in business and industrial film production. Desire challenging position with vigorous film organization, either commercial or in plant. Complete resume available. Box 1462, AMERICAN CINEMATOGRAPHER.

EUROPEAN film assignments. Worldwide experience in documentary and television productions. WORLD ALIVE FILMS, Willemsparkweg 207, Amsterdam, Netherlands.

FILM ASSIGNMENTS wanted. Pacific Coast and Midwest Area for stock shots, process plates, etc. Top Hollywood cinematographers and equipment available. WORLD WIDE FILMS, INC., 108 So. LaJolla Ave., Hollywood 48, Calif. Phones: WE 9-8308 and OL 3 5072.

AFRICA

Full 16mm equipment Arri, Magnasync, etc. Experienced cameraman. Complete safaris arranged for tourists or professional units. TRANS AFRICA GUIDES, Box 9538, Nairobi, Kenya.

SERVICES AVAILABLE

EUROPEAN assignments: THOMAS d'HOSTE, 31 Avenue Mac-Mahon Paris 17 France. In U.S.A. 7617½ Hollywood Boulevard, Hollywood, California. In Canada 3261 Forest-Hill, Montreal, P.Q.

FILM assignments, 16mm, Detroit area, scenic, stock shots. Editing and titling. HOWARD TRIEST, 10400 Saratoga, Oak Park 37, Mich. LI 2 7874.

BRAZILIAN English speaking production unit available for assignments in Brazil, Uruguay, etc. 11 years' experience color B&W. HELICONFILM, Ave. Ipiranga 1248, Sao Paulo.

JAPANESE English speaking director cinematographer for features, TV, etc. HARRY MIMURA, 2-1303 Setagaya Tokyo, Japan. Credits: Around the World in 80 Days' (Far East locations), American TV films (See American Cinematographer, March, 1961).

16mm FILM assignments—Chicago scenic, industrial in plant. ARLETTE STUDIO FILM PRODUCTIONS, 1657 Grace St., Chicago 13, Illinois. BI 8 8612. Ask for brochure.

SOUTHWESTERN U.S. assignments 16mm. Accent on desert photography, travelogue and mining. WEST WIND PRODUCTIONS, P.O. Box 325, Ajo, Arizona.

WANTED

CAMERAMAN NEEDED. Send prints of productions you have filmed, plus any other footage you have shot. Minimum requirement is ability to operate camera without errors. We are looking for imaginative man to work up to director of industrials and TV spots. FRANK WILLARD PRODUCTIONS, 1842 Briarwood Road NE, Atlanta 6, Georgia.

OUTSIDE salesman. Must be experienced. Salary and liberal commission. Our employees know of this ad. Only top notch man with good background in motion picture equipment sales will be considered. Los Angeles area. Box 1464, AMERICAN CINEMATOGRAPHER.

FILMS WANTED: amateur and professional films for TV release: drama, variety, comedies, adventure, cartoons and documentaries accepted. WELLINGTON FILMS, P.O. Box 084, Hollywood 28, California.

LABORATORY & SOUND

SOUND RECORDING at a reasonable cost. High Fidelity 16 or 35. Quality guaranteed. Complete studio and laboratory services. Color printing and lacquer coating. ESCAR MOTION PICTURE SERVICE, INC., 7315 Carnegie Avenue, Cleveland 3, Ohio. Phone ENdicott 1 2707.

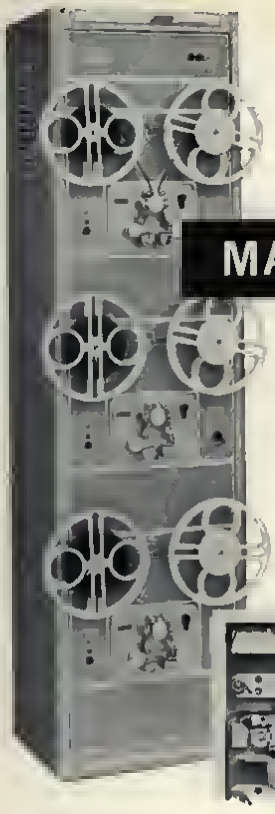
To Classified Advertisers

Copy deadline for classified advertising is the 15th of month preceding publication date. Mail copy and remittance to cover cost to

AMERICAN CINEMATOGRAPHER
1782 No. Orange Dr.
Hollywood 28, Calif.

INDEX TO ADVERTISERS

	Page
American Cinematographer Manual	169
Ansco	157
Arriflex Corp. of America	129
Bach-Auricon, Inc.	4th Cover
Birns & Sawyer Cine Equip.	151
Byron	131-132
Camera Equipment Co., Inc.	128, 133, 167
Camera Mart, Inc.	180-181
Camera Service Center	147
Capital Film Laboratories	173, 174
Chevereau	175
Cinekod Engineering Co.	176
ColorTran Industries	143
Eastman Kodak Co.	158 159
Farkas Film Co.	178
Film Effects of Hollywood	182
Filmline Corporation	148
Florman & Babb, Inc.	139, 171, 177, 179, 184
Jack Frost	161
General Electric Co.	146
W. J. German, Inc.	2nd Cover
The Horwald Co.	178
Hollywood Camera Co.	136
Hollywood Film Company	164
Lab-TV	130
Kudelski	135
Magnasync Corp.	3rd Cover
Micro-Record Corp.	178
Midwestern Film Lab.	178
Miller Professional Equipment	134
Mitchell Camera Corp.	150
Mole-Richardson Company	177
Movielab	153
Mole-Richardson European Service	149
Paillard, Inc.	145
Pathe Products, Inc.	182
Pellegrini-Piek	182
Photomart	184
Photo Research Corp.	175
Precision Laboratories	172
Charles Ross, Inc.	127
S.O.S. Photo-Cine-Optics, Inc.	137, 138, 140, 144, 148, 172, 176, 183
Samuelson Film Service, Ltd.	179
Scopus, Inc.	175
Stevens Engineering Co.	182
Superior Bulk Film Co.	182
Louis Uhler	171
Uhler Cine Machine Co.	152
Video Film Laboratories	183
Vitatone Co.	178
Zoomar	141-142



"building blocks" for sound engineers

MAGNASYNC DUBBERS

Producers have found that the use of e single recording chennel is only a small part of the tremendous sevings possible with magnetic film recording. The next step for the organization seeking quelity, economy end independence is to equip to handle their own transfer work, assembly end megnetic mixing of dielogue, music and sound effects.

Megnasync dubbers are of "modular" design end are available individuelly or in combinetion of two or three units mounted in en enclosed reck cabinet that requires only 22" of floor space.

Single Dubbers, from **$1190**

Triple Interlocked Dubbers, from **$3910**

Reer interior view of Seleyn motor electrical interlock

FEATURES:

- Plug-in preamplifiers with belenced 600 ohm output at zero vu.
- Individual synchronous drive motors.
- e Torqua motor take-up guarentees smooth film hendling and hi-speed rewind
- Electrical interlock assures absolute "sync" with projector from dead start
- Wired for remote control, stert end stop.
- Fest rewind, faat forward.
- Position for second playback head for transfer of both edge and center track recordings.
- Available with 16mm, 17½mm or 35mm transports

GENERAL SPECIFICATIONS:

Frequency response: 50 cps to 8,000 cps, ±2 db (16mm, 36 fpm), 50 cps to 12,000 cps, ±2 db (17½mm or 35mm, 90 fpm)

Signal-to-noise ratio: > 50 db.

Flutter and wow: 0.12% maximum RMS in any single band.

Distortion: < 0.18% maximum RMS overall total harmonic.

Send for free 41-page catalog describing recordere, dubbere, consolee and acceeories.

Write, wire or phone

MAGNASYNC CORPORATION

5546 Satsuma Avenue North Hollywood, California • TRiangle 7-0965 • Cable "MAGNASYNC"



International leaders in the design and manufacture of quality magnetic recording systems

Visit our booth #8 at the S.M.P.T.E. convention in Atlantic City, April 22-25

Authorized Dealers

CHICAGO ILL
Behrend Cine Corp
161 E Grand MI 2-2281
Zenith Cineme Service Inc
3252 Foster IR 8-2104
DALLAS, TEXAS
Producers Services, Inc.
4518 Maple Ave.
DAYTON OHIO
Salem Camera Co
335 Salem BA 3-7206
DENVER, COL
Western Cine Service Inc
312 S Pearl, SH 4 1017
HIALEAH, FLA
Camera Equipment Co., Inc
51 E 10th, TU 8-4064
HOLLYWOOD CALIF
Burns & Sawyer Cine Equipment
6424 Santa Monica HO 4-5166
Camera Equipment Co., Inc
651D Santa Monica HO 9-5118
S O S Photo Cine Optics, Inc
6331 Hollywood HO 7-9202
KANSAS CITY MO
Bennett's 4724 Broadway,
Country Club Plaza, LO 1-7761
Crick's Camera Shop
6320 Brookside Plaza, HI 4-3390
MINNEAPOLIS MINN
Century Camera Shops, Inc
26 S 7th FE 8-5857
NEW YORK CITY
Camera Equipment Co., Inc.
315 W 43rd JU 6-1420
Florman & Babb, Inc.
68 W. 45th MU 2-2928
Pictronics Corporation
236 E 46th YU 6-3713
S O S Photo Cine Optics, Inc
602 W 52nd, PL 7-0440
PHOENIX ARIZ
Wilson Camera Sales Co
130 W Adams, AL 4-0662
ST LOUIS MO
Stanley Photo Service
106 N Broadway CE 1-7840
SAN FRANCISCO CALIF.
Brooks Cameras Inc
45 Kearny, EX 2-1902
SAN MATEO, CALIF
Foremen's
121 Fourth Ave., DI 3-1868
SOUTH AFRICA
Photo Agencies Pty Ltd
21 Kerk St., Johannesburg
AUSTRALIA, Sydney
Sixteen Millimetre
Australia Pty Ltd
49 Market, New South Wales
BOLIVIA, La Paz
Casa Kavlin
Casilla 500, Calle Potosi 261 263
BRAZIL, Rio de Janeiro
Mesbla S.A
Rua do Passeio 42/56
BURMA, Rangoon
G K Theatre Supply Co., Ltd
123 Sule Pagoda Road
CANADA Islington, Ontario
Alex L. Clark Ltd
3751 Bloor St. W
DENMARK, Copenhagen CHL
Kinovex Electric Corp
Jenslensvej 2
ENGLAND London
Delane Lee Processes, Ltd
12 Moor St (W 1)
Cordon Cameras, Ltd
45 Kensington High, (W 8)
FRANCE, Paris
Brockliss Simplex S.A.
6 Rue Cailloume Tell
GERMANY Hilden Dusseldorf
Gerhard Johansen
3 Lessingstrasse
GREECE Athens
Christos Axarlis
50 Stadium St.
HONG KONG
Supreme Trading Co
60 Hennessy Road
INDIA Bombay
Kine Engineers
26 New Queen's Road
ITALY, Rome
Reporttilm di J.M. Schuller
Via Antonio Bertolini 31
JAPAN, Tokyo
J. Osawa & Co., Ltd
5, Ginza Nishi 2-Chrome, Chuo ku
NEW ZEALAND Auckland
Kerridge Odeon Industries
St. James Building Queen St
PAKISTAN, Karachi-3
Film Technic, Ltd.
27 Victoria Rd. Rex Annexe
SOUTH RHODESIA, Salisbury
William Over & Co Pvt. Ltd.
Kingsway & Manica Road
THAILAND, Surawong, Bangkok
G. Simon Radio Co. Ltd.
30 Patpong Avenue



Use the Quiet Running AURICON 16mm Sound-On-Film Camera...

NEVER DISTURB THE AUDIENCE WITH CAMERA NOISE

Does the scene above look familiar? You may be interested to know more about its significance relative to your sound recording needs

Here is Auricon Professional 16mm Motion Picture Sound Camera Equipment, operating right in the middle of an audience — actually within inches of the surrounding spectators! Yet, despite the complex precision mechanisms that are recording a full-color picture and every whispered word of the speaker on the rostrum, not even a murmer of distracting camera noise is heard by the audience. This quiet, dependable recording of 16mm Sound On-Film Talking Pictures is the special engineering "magic" of Auricon!

Except for the red signal lights glowing on the Auricon Sound Camera, the audience has no way of knowing that the Camera is running. In fact, even the click of the on-off switch has been muted!

Auricon Cameras are versatile and easy-to-handle because there is no bulky, sound-proof enclosure "blimp" such as all other 16mm cameras use when recording sound

Professional Producers and Cameramen choose Auricon to shoot pictures synchronized with Optical or Magnetic "Double-System" recording equipment, or to record "Single System" sound on the same film taking the picture. Write us about your sound recording equipment needs today!

All Auricon Cameras are sold with a 30 day money-back guarantee
You must be satisfied!

Write for your free copy of this 74-page Auricon Catalog







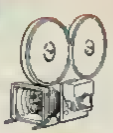


Auricon Hollywood

16MM SOUND-ON-FILM CAMERAS



CINE VOICE II
$993.50 & UP
100 ft. Runs 2¾ min



AURICON SUPER 1200
$5667.00 & UP
1200 ft. Runs 33 min



AURICON PRO 600
$1871.00 & UP
600 ft. Runs 16½ min

BACH AURICON, Inc.

2802 Romaine Street, Hollywood 38, California
HOllywood 2-0931

MANUFACTURERS OF SOUND-ON-FILM RECORDING EQUIPMENT SINCE 1931